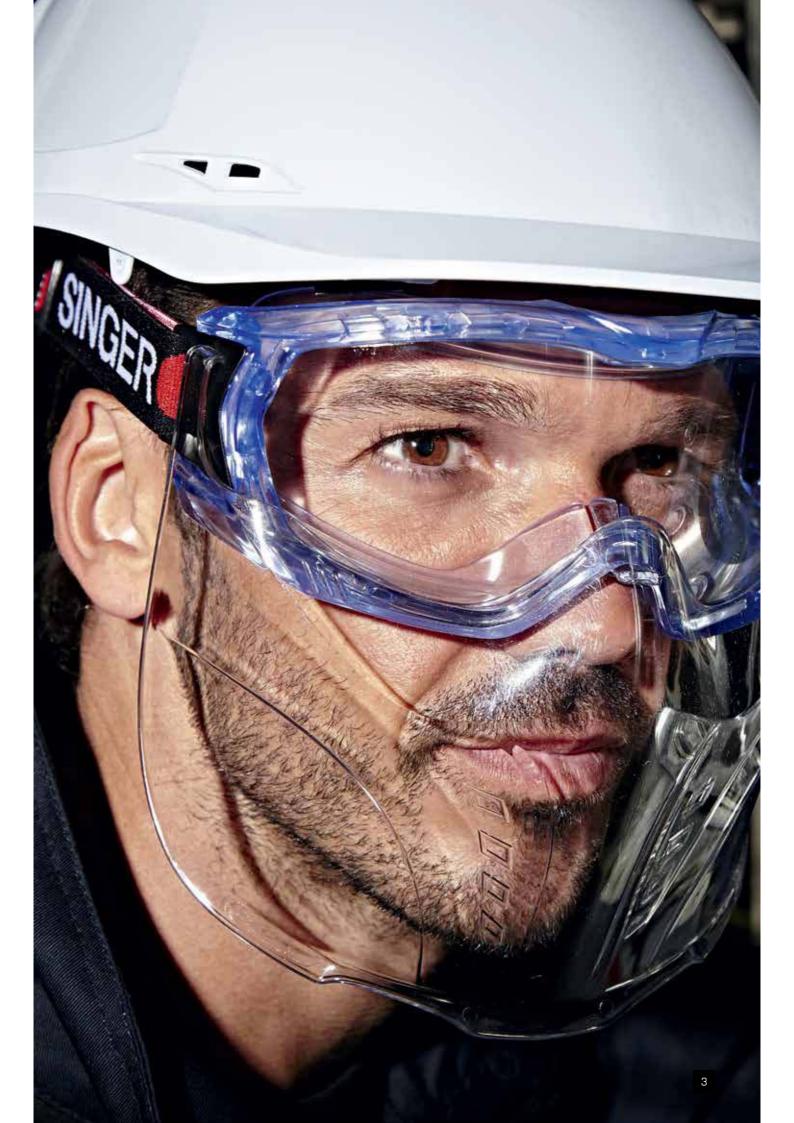


Helmet:
FORCEW, page 46
Goggle:
EVAGUARD, page 32
Protective visor:
ACCGUARD, page 32



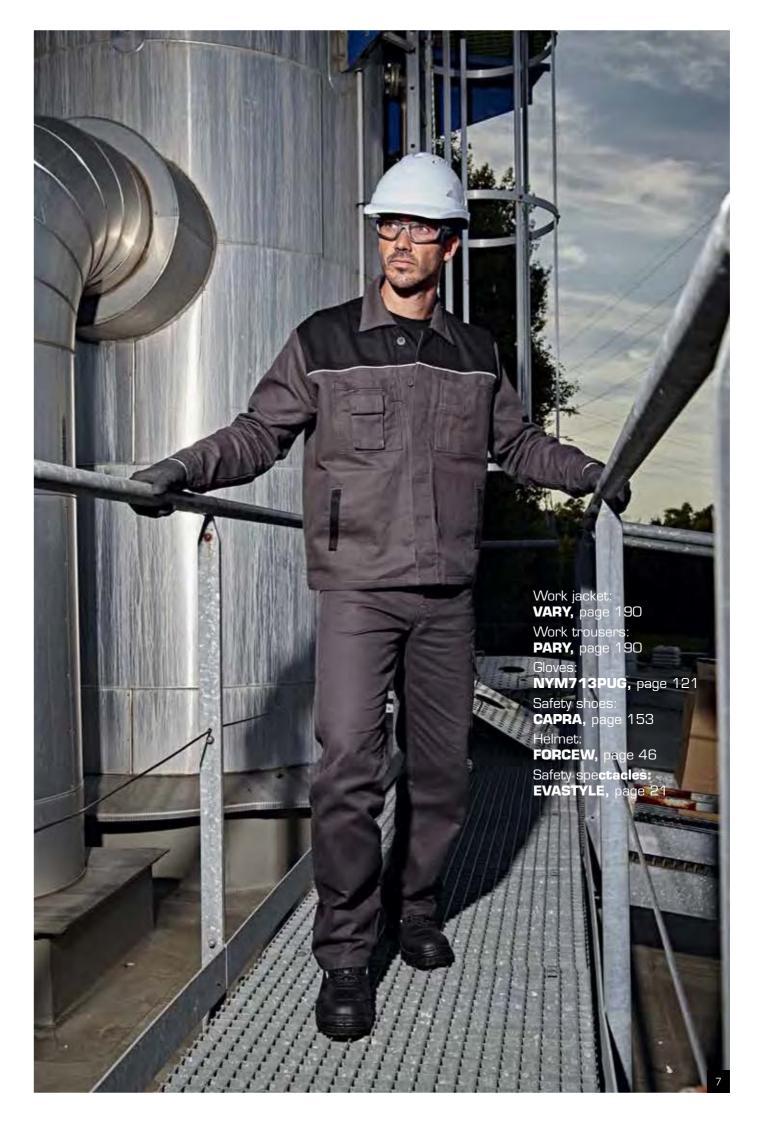


High visibility rainwear:
VILO, page 209
Gloves:
NYMFITO2, page 86
Fur lined PVC boots:
BJORN, page 158

















Goggle: **EVAGUARD,** page 32

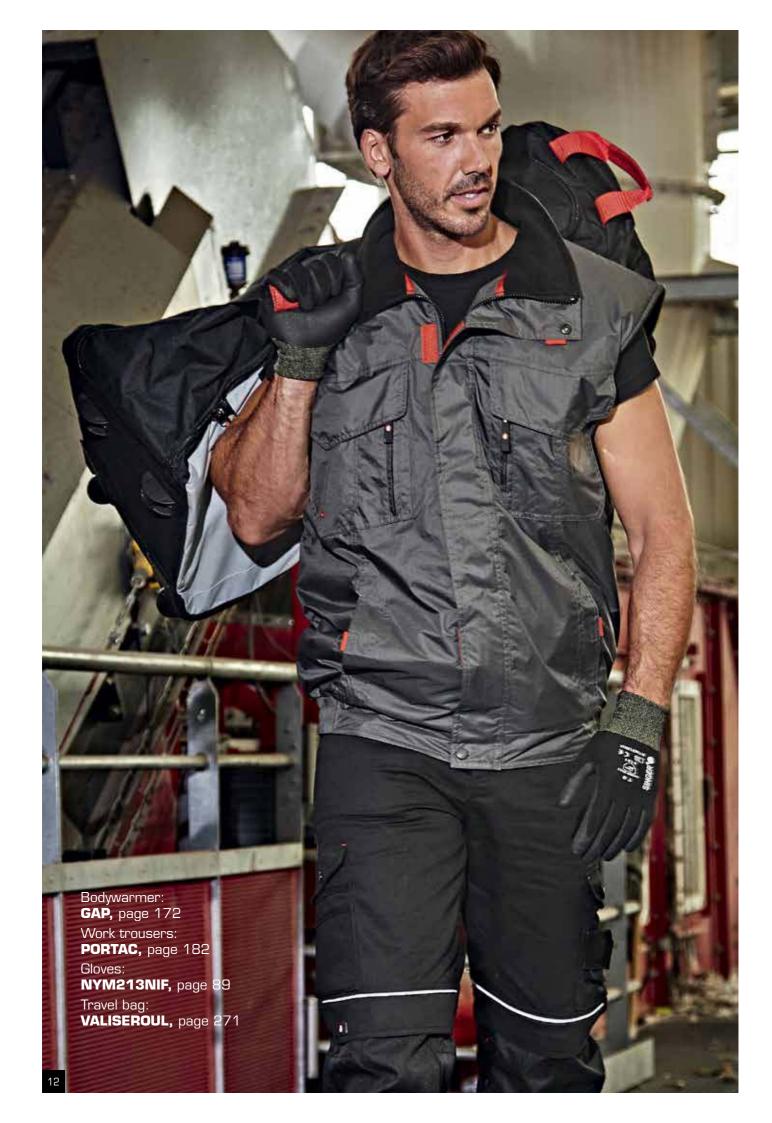
Work jacket: **VILNAM,** page 184

Work trousers: **PRAGMA,** page 184

Gloves:

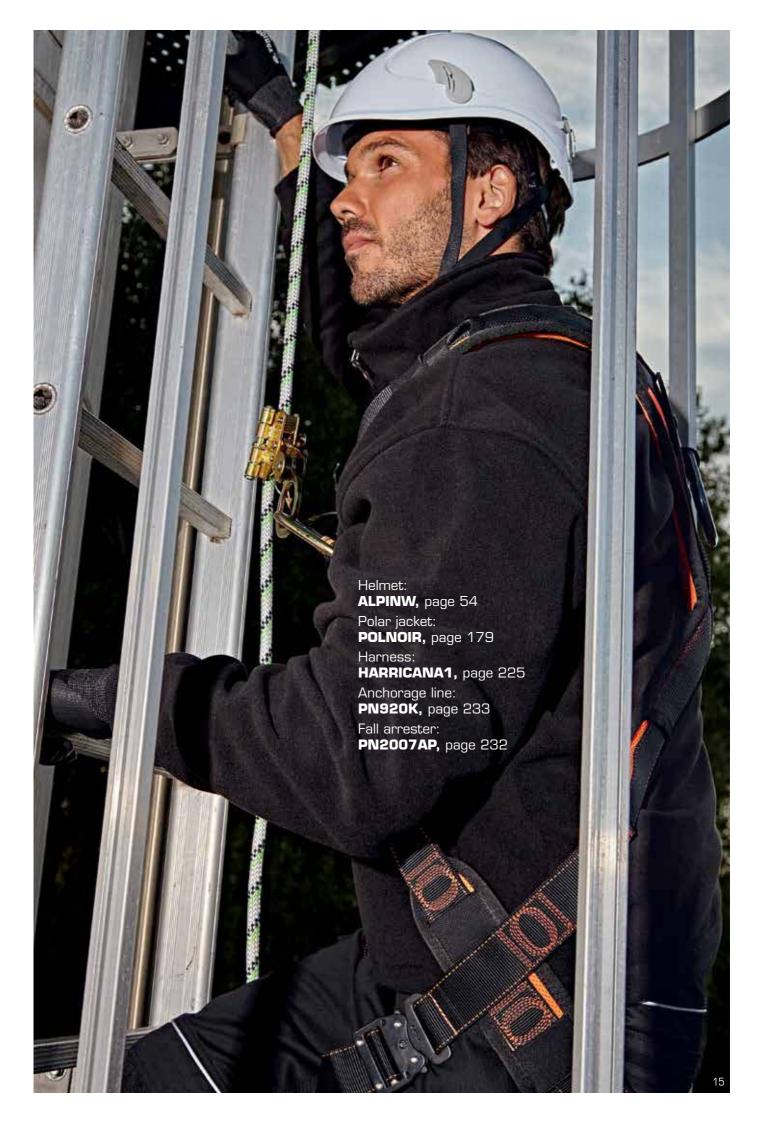
**NSA15T,** page 88

Safety shoes: **BARY,** page 148

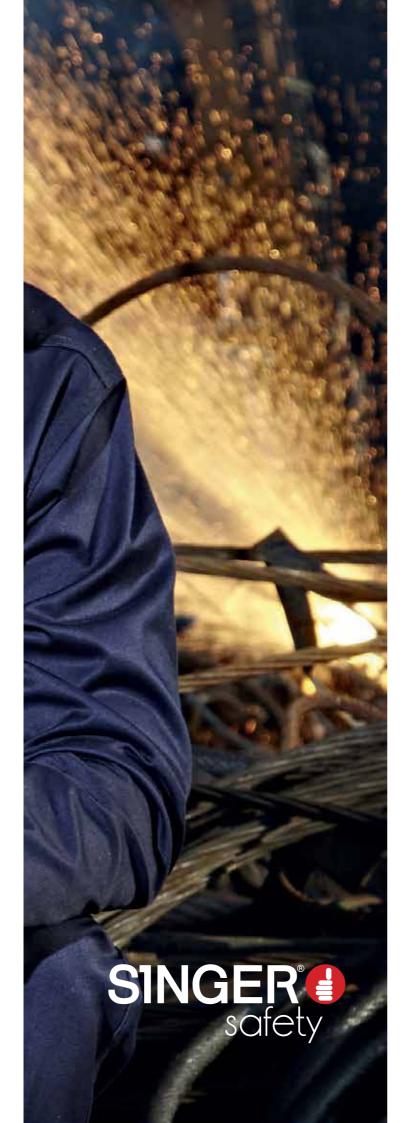












# Tendancies collection 2016/2017

# Summary

### THE HEAD

### **EYE AND FACE PROTECTION EAR PROTECTION** SKULL PROTECTION RESPIRATORY PROTECTION Single-use - Face-piece respirators. Single-use - Horizontal & vertical fold-flat ................ 60-62

### THE HAND

THE HAND	
LEATHER GLOVES	
Canadian style	70-71
Fine handling	72-73
Driver style	74-79
Welders	
SYNTHETIC GLOVES	
Nitrile coated	86-97
Neoprene coated	98-99
Latex coated	100-109
PVC coated	110-117
PU coated	118-121
Cut resistant	122-133
PVC dotted	134-136
Criss-Cross	136
Mechanics	137
Uncoated	138
COTTON GLOVES	
Interlock	139-140
Jersey	141
Terrygloves	142-143
Woven simple & double layer	144
Seamless knitted	145

### THE FOOT

EVASION COLLECTION	148-149
THE ESSENTIALS	150-153
CLASSIC	154-157
BOOTS	158-161
ACCESSORIES	162

### THE BODY

Parkas	164-169
Jackets	170-171
Bodywarmers	172-175
Softshell	176-177
Polar jackets	178-179
Pulls	180-181
Workwear	182-193
Jeans	194
Underwear	195
Welding garments	196-197
Sleeves	198-199
Rainwear	200-201
Aprons	202
HIGH-VISIBILITY	
Parkas	203-208
Rainwear	209
Jackets	210-215
Bodywarmers	216
Vests	217
Workwear	218-221
Accessories (warning triangles, cones)	221
FALL ARREST	222-236

### SINGLE USE

Respiratory protection	238-242
Respiratory protection & skull	243
The hand	244-245
The body	246-247
The body and the foot	248

## STANDARDS 249-265

INDEX	266
SINGER SAFETY	267-269
OUR SOLUTIONS	270-274
GENERAL TERM OF SALES	275







### **EVATREND**

Sunglasses. UV Resistance (UV 400).

Slim polycarbonate temples.

Silver mirror lens. Anti-fog and anti-scratch treatment.

Slip resistant insert on temples and nose bridge.

Lenses thickness: 2.20 mm.

EN166 (F, optical class 1). EN172 (5-1.7)









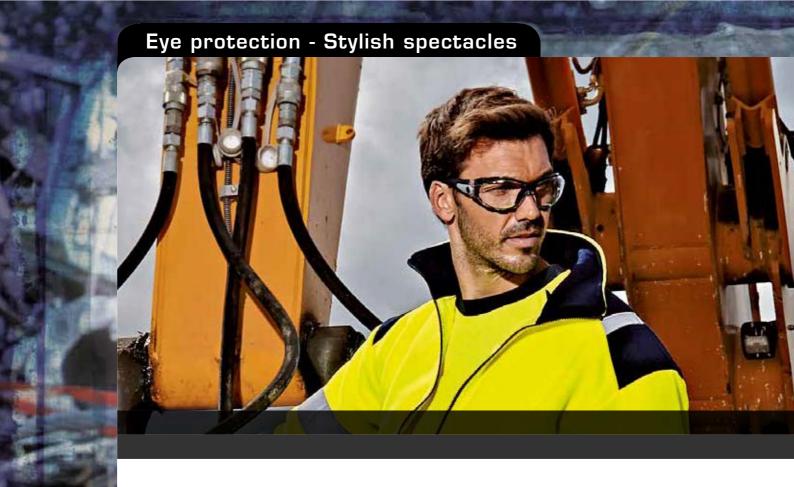
EN166 (FT, optical class1). EN170 (2C-1.2)



Modern design.







The models with inside foam improve the comfort and protection of end users by preventing dust and other particulates to penetrate.



### **EVAMOUSSE**

Pivoting temples.

Anti-scratch and anti-fog polycarbonate clear lens. Lens with an easy removable foam, comfortable and practical.

EN166 (FT, optical class 1). EN170 (2C-1.2)











Without foam



### **EVAFOM**

Anti-scratch and anti-fog clear polycarbonate lenses. Lens with an easy removable foam, comfortable and practical. Very ergonomic shape providing and excellent protection. Bi-injected ventilated sidearms with slip resistant inserts. Slip resistant nose bridge.

EN166 (F, optical class 1). EN170 (2C-1.2)









Inside view







### **EVAFOMA**

Anti-scratch and anti-fog smoke polycarbonate lenses. Lens with an easy removable foam, comfortable and practical. Very ergonomic shape providing and excellent protection. Bi-injected ventilated sidearms with slip resistant inserts. Slip resistant nose bridge.

EN166 (F, optical class 1). EN172 (5-2)

















### **EVALOR**

Thin bi-injected sidearms with slip-resistant inserts. Gloss finish frame and temples. Anti-scratch and anti-fog curved polycarbonate clear lenses. Slip resistant nose bridge. Fits with perfection the shape of the face for an excellent protection. Stylish design.

EN166 (F, optical class 1). EN170 (2C-1.2)











### **EVALORA**

Same as EVALOR but with smoke lenses

EN166 (F, optical class 1). EN172 (5-3,1)







### **EVASHARK SERIES**



### **EVASHARKGCA**

Adjustable sidearms (4 positions).
Anti-scratch and anti-fog treated clear polycarbonate lenses.
Grey frame. Perforated temples for adjustable cord (ACCCORD2N).

EN166 (FT, optical class 1). EN170 (2C-1.2)







### **EVASHARKBBA**

Metallic blue frame. Fashionable blue smoke mirror lenses.

ISO12312-1. Class 3.



### **EVASHARKMSA**

Metallic brown frame. Smoke lenses.

EN166 (FT, optical class 1). EN172 (5-2).



### **EVASHARKNJA**

Black frame. Amber coated lenses.

EN166 (FT, optical class 1). EN170 (2C-1.2).



### **EVASHARKNGA**

Black frame. Green lenses.

EN166 (FT, optical class 1). EN170 (2C-1.7).





# Eye protection - Classic spectacles



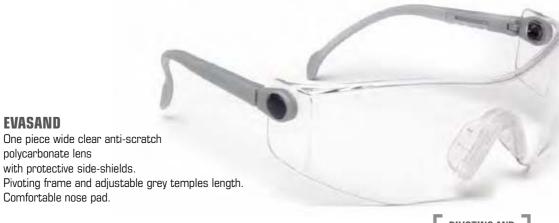
No metallic parts. EN166 (FT, optical class 1). EN170 (2C-1.2)

10x10

**EVA83ABB** 







EN166 (FT, optical class 1). EN170 (2C-1.2)

10x10

**EVASAND** 

polycarbonate lens with protective side-shields.

Comfortable nose pad.





**PIVOTING AND ADJUSTABLE-**FRAME



### EVA07

Overspectacles made up of one piece wide clear antiscratch polycarbonate lens with protective side-shields. Pivoting frame and adjustable blue temples length. Perforated temples for adjustable cord (ACCCORD2N). Can be worn over most of prescription lenses.

EN166 (FT, optical class 1). EN170 (2C-1.2)







**CAN BE WORN OVER** PRESCRIPTION LENSES



# Eye protection - Classic spectacles

INCREDIBLY LIGHTWEIGHT PERFECTLY FITS SHATE OF THE FACE

**PIVOTING** 

**FRAME** 

### **EVALIT**

Clear one piece polycarbonate anti-fog and anti-scratch lens.

Wraparound shape for perfect protection. Black ventilated temples.

EN166 (FT, optical class 1). EN170 (2C-1.2)







### **EVALANKA**

Pivoting black polyamide frame. Adjustable black temple length. Clear polycarbonate lens integrating the sideshields for a perfect protection. Clear anti-scratch polycarbonate. Perforated temples for adjustable cord.

EN166 (FT, optical class 1). EN170 (2C-1.2)









### **EVASPORT SERIES**



### **EVASPORT/B**

Length adjustable temples.

Blue polyamide frame. Polycarbonate lens integrating the sideshields for a perfect protection.

Clear anti-scratch polycarbonate.

Perforated temples for adjustable cord.

EN166 (FT, optical class 1). EN170 (2C-1.2)







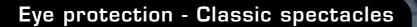


### **EVASPORT/N**

Black frame.

### **EVASPORTN/AB**

Also available with anti-fog lens.



### **EVASTAR SERIES**

### **EVASTAR**

Visitor spectacles with large ventiladed sidearms. No metallic parts (100% polycarbonate). Sideshields integrated in the sidearms. Perforated temples for adjustable cord.

EN166 (FT, optical class 1). EN170 (2C-1.2)



/ 44g.



ROBUST

100 % POLYCARBONATE

### **EVALAB**

 $\label{eq:protection} Protection\ spectacles-visitor\ style\ with\ large\ ventilated\ sidearms.$ 

Lenses and frame in clear polycarbonate Lenses thickness: 2.00 mm. Perforated temples for adjustable cord.

EN166 (FT, optical class 1). EN170 (2C-1.2)



Ø 27g.





### **EVA317**

Traditional spectacles. Lateral folding sideshields. Polyamide frame. Clear polycarbonate lens removable with screw. Spare lenses available.

EN166 (S, optical class 1)



Ø 31g.



### ACCVIC317

Clear spare polycarbonate lenses for EVA317.

EN166.



# Eye protection - Accessories



### ACCCORD4

Elastic flat cord for spectacles. Adjustable length. Elastomer slip-resistant loop connectors.

Dark colour.

28 cm x 1,00 cm.



### SINGER 1



### ACCCORD2N

Elastic round cord for spectacles. Adustable length. Clip connectors. Very easy to connect on eyewear with perforated temples. Black colour. 33,5 cm x 2 mm. (EVASPORT, EVASTAR, EVASHARK, EVAO7, EVARED, EVALOR, EVALORA, EVALAB, EVASUD).







### ACCCORD3

Elastic round cord for spectacles. Adjustable length. Loop connectors. Black colour. 32 cm x 2,30 mm.



Black colour.





### **ACCETUI**

Black synthetic case for spectacles. Clip belt attachment. Keep your equipement away from dust scratch and impact.



### SINGER®



### **ACCETUI2**

Black soft synthetic case for spectacles. Keep your equipment away from dust.



SINGER®



### **ACCETUI3**

Strong Eva case for spectacles. Dark colour. With zipper closing, hook and belt loop.



SINGER®





WIDE FIELD OF VISION

### **EVAGUARD**

Quality safety goggle. P.V.C frame. Unvented. Panoramic clear anti-scratch and anti-fog polycarbonate curved lens. Lens thickness: 2.30 mm.

Quick adjustable elastic headband. The wide peripheral vision provides high levels of comfort and maximum protection. Can be fitted with the visor  ${f ACCGUARD}$  to form a complete face protection.

EN166 (BT, 3, 4, 5, optical class 1), EN170 (2C-1.2)



/ 110g.

SINGER\*\*





Ø 60g.

# Eye protection - Goggles

### **EVASAFE**

Premium safety google. Non vented.

With UV protection.

Lenses: double safety clear lenses.

Inside anti-fog acetate lens 0.50 mm (marking N).

Outside anti-scratch polycarbonate lens

2.30 mm (marking K).

Body: soft and comfortable elastomere.

Neoprene elastic headband.

Wide edge and comfortable nose bridge.

EN166 (BT, 3, 4, 5, 9, K, N, optical class 1) EN170 (2C-1.2)







PREMIUM!

### **EVAFLEX**

Black TPU frame. Soft foam seal all around the mask edge for a high level of comfort and a perfect fit. Wide easy adjustable headband. Curved clear lens with anti-scratch and anti-fog treatment.

Can be worn over most of prescription lenses.

EN166 (BT, 3, 4, optical class 1), EN170 (2-1.2)







### **EVACANA**

Original model featuring a super wide lens for an excellent panoramic vision.

Dual injected soft frame with pressure free fit tight seal design.

Anti-scratch and anti-fog clear polycarbonate screen.

Large and easy adjustable elastic headband. Fits over most prescription lenses.

EN166 (BT, 3, 9, N, optical class 1)











# Eye protection - Goggles

### EVA03

PVC frame with direct ventilation. Clear panoramic antiscratch and anti-fog polycarbonate curved lens. Enhanced peripheral vision. Quick adjustable elastic headband provides fast, comfortable and easy fit for all wearers.

EN166 (BT, 3, 4 and 9, optical class 1)









### **EVAPRO**

PVC frame with 4 vents. Quick adjustable elastic headband provides fast, comfortable and easy fit for all wearers. Clear panoramic anti-scratch and anti-fog polycarbonate lens. Can be worn over prescription lenses.

EN166 (BT, 3, 4 and 9, optical class 1)









### **EVARIO**

PVC frame with 4 cap vents.

Adjustable headband.

Clear anti-scratch and anti-fog polycarbonate lens.

EN166 (BT, 3, 4 and 9, optical class 1)



Ø 76g





### **EVAMAS**

Soft PVC frame with direct ventilation. Adjustable headband. Clear polycarbonate lens.

EN166 (BT, 4 and 9, optical class 1)





SINGER®







TESTED AGAINST THE SHORT CIRCUIT ELECTRIC ARC (MARK «8»).

### FORCE805

Clear polycarbonate spherical visor. (400 x 205 mm). Thickness: 2.00 mm.

EN166 (3, 8, 9, BT, optical class 1). EN170 (2-1.2).



### ACC930TL

Smoke polycarbonate spherical visor. (400 x 225 mm). Thickness: 2.00 mm.



EN166 (BT, optical class 1). EN172 (5-3.1).



### **FORCECAL**

Blue protective browguard with ratchet

Front sweatband and back confort foam pad. Tested against the short circuit electric arc (Mark «8»).

To be used together with the visors FORCE805, ACC930CL or ACC930TL. (ACC930CL and ACC930TL are not tested again the short circuit electric arc).

EN166 (3, 8, 9, BT). EN175 (S).



SINGER®

### ACC930CL

Clear polycarbonate spherical visor. (400 x 225 mm). Thickness: 2.00 mm.

EN166 (BT, optical class 1). EN170 (2-1.2).



# Face protection - Face shield protectors



### **EVA825**

Features a yellow impact brow protector with ratchet headgear and a stainless steel mesh swivel-up visor (305 x 195 mm).

EN1731 F



SINGER®



Features a yellow impact brow protector with ratchet headgear and a clear swivel-up polycarbonate visor (305 x 190 mm). Thickness: 1.00 mm.

EN166 (B, optical class 1)



SINGER®



### **ACC825**

Spare mesh (305 x 195 mm).

EN1731





### ACC805LARG

Spare polycarbonate 395 x 200 mm.

EN166



### **ACC805**

Spare polycarbonate 305 x 190 mm.

EN166



## Face protection - Face shield protectors



#### **EVA848**

Features a yellow impact brow protector with ratchet headgear and a clear swivel-up polycarbonate visor with aluminium edge. (394 x 203 mm). Thickness: 1.00 mm.

EN166 (B, optical class 1)







#### **ACC848**

Spare polycarbonate visor. 394 x 203 mm. Thickness: 1.00 mm.

EN166.





#### **HG925N**

Forest kit which includes a black polypropylene browguard (HG900) with ratchet headgear, ear-muffs (HG106J) and a large mesh visor HG825L (385 x 195 mm). delivered dismantled

EN1731, EN352-1



SINGER®

FACE SHIELD WITH EAR-MUFFS



#### **HG825L**

Spare mesh visor (385 x 195 mm).

EN1731.



# Eye protection - Welding eyewear



#### **EVASPORTN3**

Length adjustable polyamide temples. Smoke polycarbonate lens and sideshields.

EN166 (FT, optical class 1), EN175, EN169 (scale  $n^{\circ}$  3)









Traditional spectacles. Lateral folding sideshields. Polyamide frame. Green adiactinic glass lenses, DIN 5 (solely to be used for protection against the optical rays produced by flame welding).

EN166 (optical class 2), EN175, EN169 (scale n° 5)





# METAL FREE

#### **EVASTARN5**

Visitor style with large ventilated smoke polycarbonate sidearms. One piece polycarbonate smoke lens.

EN166 (FT, optical class 1), EN175, EN169 (scale n° 5), EN171 (scale n° 4-5)



SINGER®

## **GOGGLE**



#### LUN225

PVC frame with 4 cap vents.

Black lens holder in polycarbonate equipped with fixed clear polycarbonate lenses and flip-up glass lenses scale number 5 with polycarbonate cover lenses. Adjustable headband.

EN166, EN175, EN169 (scale n° 5)







#### OPTO-ELECTRONIC HOOD





#### ACC1190E2

Spare front clear visor for MS1190





MS1190

Opto-electronic welding hood. Moulded in rigid high-strength black polypropylene. A clear PC protective cover lens is secured to the front and rear frames. The frontal viewing window is equipped with a solar cell and filter for welding operations, in shades 4/9-13 (fixed shade 4, automatically variable shade ranging from 9 to 13).

Response time 1/25,000 s. Interior field of vision  $92 \times 42$  mm. Dimensions of filter 110 mm x 90 mm x 9 mm. 2 sensors.

EN166, EN175, EN379



#### SINGER\*\*

#### HEADGEAR HOOD



EN175



SINGER\*\*

## **PROTECTIVE SCREENS**

#### **SMOKE** (SPECIAL WELDING)

Welding Protane® mineral glass screens 108 x 51 mm. To use with EVA300.

#### SMOKE

#### **ACCVP10900**

Scale n° 10

#### ACCVP11900

Scale n° 11

#### ACCVP13900

Scale n° 13

#### EN169



CLEAR

#### ACCVP10550

Polycarbonate 107 x 50 mm

#### ACCVM1900

Mineral glass 105 x 50mm

x100

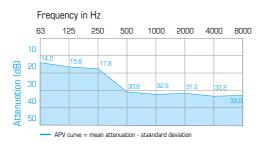
## Ear protection - Electronics ear-muffs

## **ELECTRONIC EAR-MUFFS**

AUTOMATICALLY BLOCKS OUT DANGEROUS NOISES

#### **HG805A**

Electronic level-dependent ear-muffs. LCD indicator. ON/OFF volume control. Sensitive microphone. Powered by 2 AA batteries (not included).



SNR 31dB (H:33 M:28 L:21). EN352-4



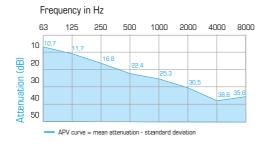






#### **HG816R**

Electronic ear-muffs with FM radio.
Wide headband fitted with comfort cushion.
ON/OFF volume control. Radio tuning knob.
Powered by two type AA batteries (not included).



SNR 28dB (H:31 M:24 L:18). EN352-1, PREN352-8



Ø 379g.



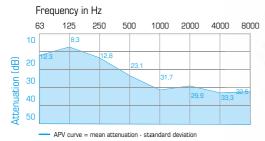
LIGHT WEIGHT AND SUPER COMPACT

#### **HG803G**

Light weight ear-muffs.

Foldable and super compact. Grey adjustable cups. Gloss finishing. Headband equipped with comfortable cushions. Black highly comfortable cushions. High density inside foam.

#### Packed under individual blister.



SNR 26,3dB (H:31,8 M:23,6 L:14,9). EN352-1











#### **HG813G**

Light weight ear-muffs.

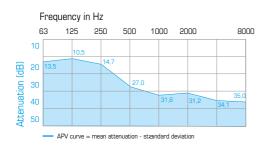
Grey adjustable cups. Gloss finishing.

Headband equipped with a comfortable cushion.

Black highly comfortable cushions.

High density inside foam.

#### Packed under individual box.



SNR 28dB (H:33 M:26 L:17). EN352-1



*1*56g.





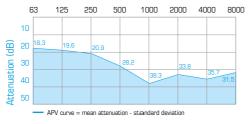
## Ear protection - Comfort + ear-muffs

#### **HG107PNR**

Compact and foldable ear-muffs. Foldable design, easy to store. Maximum protection. Soft and comfortable foam on headband.



Frequency in Hz



SNR 33dB (H:34 M:31 L:24). EN352-1









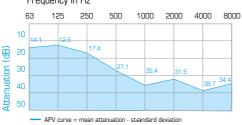


#### **HG106PNR**

Compact and foldable ear-muffs.
Foldable design, easy to store.
Soft and comfortable foam on headband.



Frequency in Hz



SNR 30dB (H:34 M:28 L:19). EN352-1



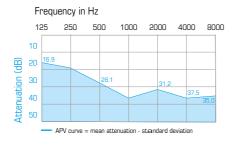






#### HG105NR

Very comfortable ear-muffs. Soft and comfortable foam on headband.



SNR 32dB (H:34 M:30 L:23). EN352-1



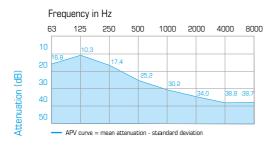




## Ear protection - Classics ear-muffs

#### **CASBRUIT**

Light weight ear-muffs. Red cups adjustable on headband. Equipped with black comfortable cushions.



SNR 29dB (H:35 M:26 L:18). EN352-1



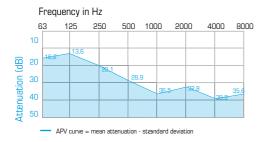






#### **CASBRUITPC**

Compact and foldable ear-muffs. Very easy to store. Red cup equipped with black comfortable cushions.



SNR 32,1dB (H:35,1 M:29,7 L:21,1) EN352-1

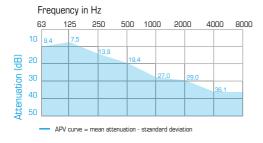








Light weight ear-muffs. Yellow cups adjustable on headband. Headband equipped with black comfortable cushions. Soft and comfortable cushion on headband.



SNR 25,5dB (H:30,8 M:22,5 L:14,8). EN352-1







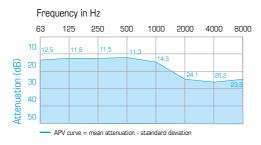




## Ear protection - Headbands / Ear-plugs

#### **HG545J**

Handy and flexible yellow polypropylene headband. Comfortable white sucker style silicone rubber plug. Re-usable. Available spare ear-plugs.



SNR 19dB (H:22 M:15 L:13). EN352-2





#### **HG545JRB**

Spare white earplugs for HG545J. Washable and re-usable.

1000 pieces.

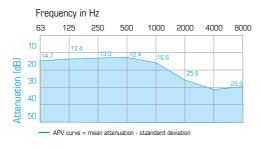






#### HG548NJ

Handy and flexible black plastic headband. Comfortable yellow polyurethane ear-plugs. Re-usable. Available spare ear-plugs.



SNR 21dB (H:24 M:16 L:14). EN352-2





#### HG548NJRB

Spare yellow ear-plugs for HG548NJ. Re-usable.

1000 pieces.

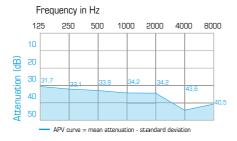






#### **HGBDTC**

Corded detectable ear-plugs. Soft and comfortable. In polyurethane. Corded. Conical shape for easy insertion. Single use. Blue colour. Display boxes of 200 pairs. Each pair under individual polybag.



SNR 37dB (H:36 M:35 L:34). EN352-2



SINGER®

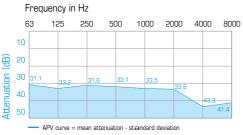
DETECTABLE



#### HGB030 - Uncorded HGB030C - Corded

Orange soft PU foam ear-plugs. Disposable. Conical shape for easy insertion. Smooth outer surface for better hygiene. Display boxes of 200 pairs.

Each pair under individual polybag.



SNR 37dB (H:36 M:34 L:33). EN352-2















RECB01 Ear-plugs refill. Model HGB030.

1000 pieces.



#### **DISTB**

Ear-plugs dispenser. Catch basin prevents earplugs from falling to the ground.

Delivered without ear-plugs.



SINGER®





#### BTB02

For perfect hygiene keep your ear-plugs in a clean area, away from dust. You will find this small belt clip-up box very useful. Delivered without ear-plugs.



HGB20

Ear-plugs in box of 20 pieces.



SINGER®



## Skull protection - Helmets

## **VENTILATED**









In ABS, 8 points suspension; web suspension. PE headgear with ratchet easy system adjustment. 53-66 cm. Back comfort foam pad. Front sweatband. Delivered preassembled.

#### With optional test:

- Tested at low temperatures: - 30°C.

EN397



SINGER 1

## UNVENTILATED



#### **FORCE2W**

In ABS, 8 points suspension; web suspension PE headgear with ratchet easy system adjustment. 53-66 cm. Back comfort foam pad. Front sweatband. Delivered preassembled.

#### With optional tests:

- Tested at low temperatures: -30°C.
- Electrical isolation 440 V.
- Melting metal projection  $\boldsymbol{\mathsf{w}}$  MM  $\boldsymbol{\mathsf{w}}.$
- Class O. (1000 V c.a.).

EN397, EN50365 🖄













## ACCESSORIES FOR FORCE AND FORCE2

#### **FORCEACC**

Set of 2 adaptors to fix the face shield holder FORCESUP on helmet. Not required in case of combined use of a visor with ear-muffs.



10x1

#### FORCEJUG

Chin strap. In textile and plastic.



FORCE107 Ear-muffs.



EN352-3.



#### **FORCESUP**

10x10

Face shield holder. To be used with adaptors (FORCEACC) or without adaptors in case of use of ear-muffs.

EN166.





#### **ACC825**

Spare mesh visor. 305 x 195 mm.



EN1731



#### ACC805 & ACC805LARG

Spare clear polycarbonate visors. 305 x 190, ref ACC805 395 x 200, ref ACC805LARG

EN166 (BT, optical class 1).



#### FORCE805

Spare clear polycarbonate spherical visor. (400 x 205 mm). Tested against the short circuit electric arc (Mark «8»).Thickness 2.00 mm.

EN166 (3, 8, 9, BT, optical class 1). EN170 (2-1.2).



#### ACCBFORCE

Spare front sweatband.



10x10

#### ACC930CL

Spare clear polycarbonate spherical visor. (400 x 225 mm) Thickness: 2.00 mm

EN166 (BT, optical class 1) EN170 (2-1.2)



#### ACC930TL

Spare smoke polycarbonate spherical visor. (400 x 225 mm) Thickness: 2.00 mm

EN166 (BT, optical class 1) EN172 (5-3.1).









## Skull protection - Helmets & accessories

ABS SAFETY HELMET WITH WEB SUSPENSION AND ITS ACCESSORIES.



#### **HG902W**

White colour.

In ABS, 4 points suspension.

PE headgear with ratchet easy system adjustment.

Front sweatband. Back comfort foam pad.

Delivered unassembled.

EN397



## SINGER®

## **ACCESSORIES FOR HG902**





# 60x1

#### **HG867** Visor holder. Delivered with the adaptor HG18.





#### HG825L Mesh visors For use with the adaptor HG18 and the face shield holder HG867. EN1731.

20x10



#### ACC805LARG

Polycarbonate Visor. For use with the adaptor HG18 and the face shield holder HG867

EN166.





#### HG03N Chin strap. In textile and plastic.

20x50



2 adaptors are required to fix the face shield holder HG867. (not required in case of combined use of a visor with ear-muffs). Sold per piece.

300x1

# Skull protection - Helmets & accessories



## Skull protection - Helmets & accessories



CASIRISJAU2

**CASIRISROU2** 

CASIRISBLE2

CASIRISOR2

**CASIRISVER2** 

CASIRISBL2

Polyamide working helmet IRIS2 with flip-up spectacle. Adjustable ventilation. Ratchet adjustement.

EN397, EN166, EN170



**LUNIRIS2** Spare glasses.

EN166/EN170













#### LUNKARA Safety glasses suitable for the helmet CAS7001.



#### **CAS7001**

Safety helmet with short visor. Ventilated moulded shell in A.B.S. 4 point textile suspension and low density polyethylene headgear with adjustable ratchet system (53 to 63 cm). Equipped with woven chin strap with plastic buckle, for working at height. White colour.

EN397



# **Skull protection - Accessories**



## VISOR HOLDER



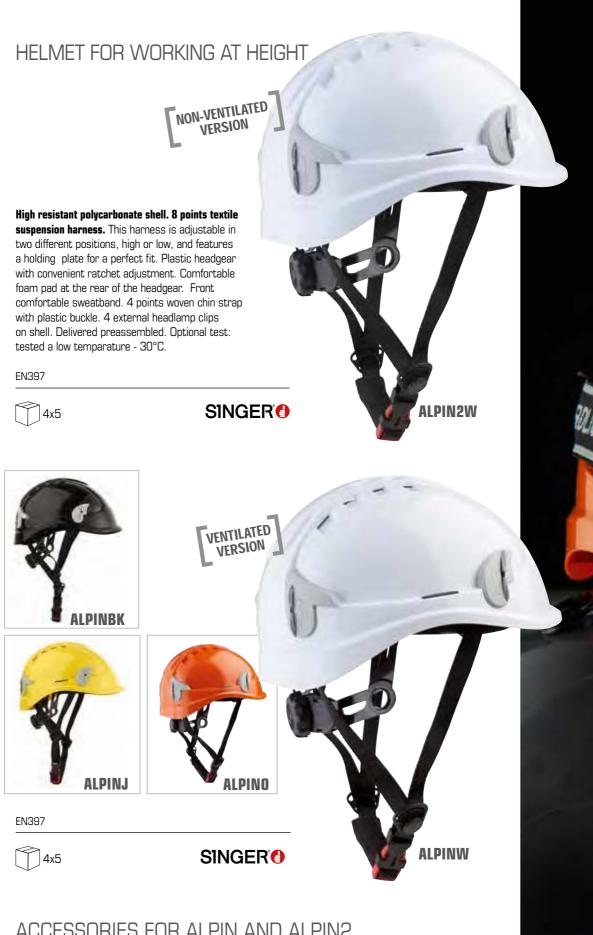
#### **ACCAVPC**

Visor holder for helmet, flip-up model. Suitable for the visors ACC805, ACC805LARG, ACC825 and HG825L.

EN166, EN1731.



## Skull protection - Helmets



ACCESSORIES FOR ALPIN AND ALPIN2

All the accessories of FORCE and FORCE2 are suitable for the ALPIN and ALPIN2 (see page 47).



## Lighting

## **HEADLAMPS**

To be used alone or with Alpin helmet. Adjustable head-strap system to wear directly on head.

#### LP330FB

Ultra-compact and light weight. Water-resistant. LED/XENON. 4 positions. Uses 3 batteries (1.5 V AAA) (included).







#### LP95FB

10 meters water-resistant. spare bulb included. Uses 2 batteries (1.5 V AA). (not included).



SINGER®



#### ATEX TORCHLAMP



#### LP1013

Light source: LED 1 W OSRAM. Lumens: 80 lm.

Run time: 14 hrs 55 mins.

Power source: 4 batteries AA type (non included).

Dimensions: 175 x 45 x 45 mm. Weight: 105 g (w/o batteries). Beam distance: 122 m. Waterproof: 1 m. IP67.

Rubber on/off button at the end of the lamp.

Colour: black/yellow.

EX II 1G Ex ia IIC T4 (certified by Demko).



SINGER (1)



 $L.E.D. \ Light \ Emitting \ Diode. \ Some \ of numerous \ advantages \ of \ a \ L.E.D. \ bulb: \ better \ luminous \ efficiency - very \ long \ life \ span \ (more \ than \ 100,000 \ hours \ continuous \ using) - less \ energy \ consumtion - shock \ and \ vibration \ resistant$ 

## Skull protection - Caps

## BASE-BALL BUMP CAPS









#### **HG913B**

Blue colour.

Made of moulded A.B.S shell covered with a coloured cotton fabric cap. Front peak. Self grip fastening at the back.

Ventilated on both sides. Inside foam pad for wearer comfort and protection.

**HG913W** 

**HG913N** 





HG9130

HG913HV

EN812.



SINGER®

SHORT PEAK

#### **HG914B**

Blue colour.

Same model as the HG913 cap with a short peak (3 cm).



SINGER 1



#### **BE CAREFUL IMPORTANT NOTICE!**

THIS PRODUCT IS NOT AN INDUSTRIAL SAFETY HELMET.

## Skull protection - Caps and hoods

- BONABL
- BONOI
- **BONTHB** Thinsulate<sup>®</sup> lined.
- BONTHN Thinsulate® lined.

Acrylic knitted. One size only.



SINGER®

#### **PASMONABL**

Acrylic. Knitted. With peak. Single size only. Navy blue colour.



SINGER®

## WINTER CAP

#### **CAFPOLA**

Polyamide. Padded. Ear and neck protection in Polar polyester lining. Adjustable chin strap. One size fits all. Blue colour.



SINGER 1

## SUMMER CAP

#### CAP

Cotton. Adjustment in the back. Black colour.





#### TEXTILE AND LEATHER HOODS

#### **PYROCAG**

Fire retardant protective hood.
Fabric in Pyrovatex 310 gsm.
99% cotton, 1% antistatic material (carbon).
Large flap covering the shoulders.
Ajdustement with hook-and-loop flap.
Original system of hook-and-loops straps on top of the hood for convenient adjustement on welding hood.
Blue colour.

EN ISO11611 (Class 1 A1) EN ISO11612 (Class A1+A2 B1 C1 E1) EN1149-5











#### **SOUDAC**

Split leather. Front opening with 3 press studs under leather flap. Large leather flap covering the shoulders. Sewn with arami yarn.

EN ISO11611 (Class 1/2 A1)







#### **COTCAG**

Neck protection and drawstrings adjustment. No permanent flame retardant cotton fabric.



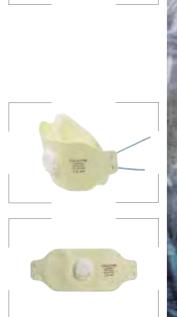












## CLASSIC FOLDABLE PARTICULATE RESPIRATORS

#### Horizontal fold flat

Foldable design and easy carry/storage. Hygienic individual packaging. Sealed edge avoids fluffy open layers and eliminates the possibility of irritation. P.P. outer/inner layers provide smooth lining and a comfortable feel. Soft edges can fit different facial shapes with minimum leakage.

Latex-free continuous loop design allows to hang the mask around the neck when not in use. Complies with EN149: 2001 standard. Passes EN149:2001 optional Dolomite (D) clogging test for more comfortable breathing. Boxes of 20 pieces.



#### AUUMP100SL

Boxes of 20 pieces.

FFP1 NR D







#### **AUUMP200VSL**

With exhalation valve. Make breathing easier. Boxes of 20 pieces.

FFP2 NR D



SINGER®

#### AUUMP300VSL

With exhalation valve. Make breathing easier. Boxes of 20 pieces.



FFP3 NR D



SINGER®

## **CLASSIC** FOLDABLE PARTICULATE RESPIRATORS

#### Vertical flod flat

Patented headstrap buckle to adjust length of headstrap for various facial sizes. Cool latex-free textile braided headstrap for comfortable wearing. No staple used. Avoid contact between skin and metal. Continuous loop design allows to hang the mask around the neck when not in use. P.P. inner/outer layers provide smooth lining and a comfortable feel. Foldable design and easy carry/storage. Hygienic individual packaging. Boxes of 20 pieces. EN149:2001 standard.



#### AUUMP31

FFP1 NR



With exhalation valve. Make breathing easier. Boxes of 20 pieces.

FFP1 NR



x12

**AUUMP32V** With exhalation valve. Make breathing easier. Boxes of 20 pieces.

FFP2 NR









With exhalation valve. Make breathing easier. Boxes of 20 pieces.

FFP3 NR







#### COMFORT PARTICULATE RESPIRATORS

Passes EN149:2001 optional Dolomite (D) clogging test for more comfortable breathing. Patented headstrap buckle to adjust length of headstrap for various facial sizes. No metal used. Avoid contact between skin and metal and is suitable for those environments where metal is not allowed. Cool latex-free textile braided headstrap for comfortable wearing. Continuous loop headstrap design allows to hang the mask around the neck when not in use. Polypropylene (P.P.) inner layer provides the most intimate touch to your face. Pre-shaped nose cushion and soft closed-cell nose foam ensures a custom shape that increases worker comfort and acceptance. Embossed fringe seal avoids fluffy open layer around the edges. Contour design ensures the compatibility of spectacles/goggles and reduces fogging.



#### AUUM21

Boxes of 20 pieces.

FFP1 NR D







#### AUUM21V

Same as AUUM21 but with exhalation valve. Boxes of 10 pieces.

FFP1 NR D







#### **AUUM22V**

Exhalation valve.
Boxes of 10 pieces.

FFP2 NR D



SINGER®



#### **AUUM23V**

Exhalation valve.
Boxes of 10 pieces.

FFP3 NR D



# CLASSIC PARTICULATE RESPIRATORS

Face-piece respirators. Filters solid and liquid aerosols. Moulded series. Approved to EN149:2001 standard. Passes EN149:2001 optional Dolomite (D) clogging test for more comfortable breathing. Polypropylene outer layer provides smooth lining and avoids loose fibers. Embossed fringe seal avoids fluffy open layer around the edges.

Latex-free synthetic rubber double headstrap. Contour design ensures the compatibility of spectacles/goggles and reduces fogging. Soft nose foam and adjustable nosepiece ensures custom shape and increases worker comfort and acceptance



#### **AUUM10SL**

Box of 20 pieces.

FFP1 NR D







#### **AUUM10VSL**

With exhalation valve. Box of 10 pieces.

FFP1 NR D



SINGER®



#### **AUUM20SL**

Box of 20 pieces.

FFP2 NR D



SINGER®



#### **AUUM20VSL**

With exhalation valve. Box of 10 pieces.

FFP2 NR D



SINGER\*\*



#### **AUUM30VSL**

With exhalation valve. Buckles adjustment. Facial foam. Box of 5 pieces.

FFP3 NR D



## PARTICULATE RESPIRATORS

Cool latex-free headstrap for comfortable wearing. Pre-shaped nose cushion and soft closed-cell nose foam ensures a custom shape that increase worker comfort and acceptance. Complies with EN149: 2001 standard. Passes EN149: 2001 optional dolomite (D) clogging test for more comfortable breathing.



#### **AUUMEC10**

Box of 20 pieces.

FFP1 NR D



FFP2 NR D



#### **AUUMEC30V**

Metal free (avoid skin irritations). Continuous loop headstrap design allows to hang the mask around the neck when not in use.

Box of 10 pieces.

FFP3 NR D





## Respiratory protection - Full face masks and cartridges

RUBBER Or Silicone

MP731R - Face piece in rubber.
MP731S - Face piece in silicone.

External face piece in rubber.

Anti-scratch treated polycarbonate panoramic visor.

Harness made up of 5 easy adjustable straps. Inside masks with two membranes for easy air circulation and mist prevention.1 filter carrier (cartridge) with standard En148/1 threading. Delivered without cartridge.

Delivered in a non-woven bag.

EN136





## Technical data

EN136: Respiratory protective devices. Full face masks. Requirements, testing, marking.

EN140: Respiratory protective devices. Half-masks and quarter masks.

Requirements, testing, marking.

EN14387: Respiratory protective devices.

Gas filters and combined filters.

Requirements, testing, marking.

These filters are classified in types and classes according to the use and the filtering capacity.

Type A (brown)	against gas and organic vapours with a boiling point superior to 60°C.
Type B (grey)	against certain gas and inorganic vapours (excluding carbon monoxide).
Type E (yellow)	against sulphur dioxide, other gas, acid vapours.
Type K (green)	against ammonia and organic derivatives of ammonia.

EN143: Filters against particules (solids and liquids).
Classified according to the filter's efficiency
(P1, P2, P3).



References	Type of cartridges EN14387 and/or EN143 For MP731R and MP731S
725A2	A2 cartridge
725P3	P3 cartridge
725A2P3	A2, P3 cartridge
725AB2P3	A2, B2, P3 cartridge
725ABEK2	A2, B2, E2, K2 cartridge
725ABEK2P3	A2, B2, E2, K2, P3 cartridge
725ABEK2HgP3	A2, B2, E2, K2, Hg, P3 cartridge
725K2	K2 cartridge



# Respiratory protection - Full face mask, half-masks & filters

## SILICONE

#### **MP732S**

External face piece in silicone.

Anti-scratch treated polycarbonate panoramic visor. Harness made up of 5 easy adjustable straps. Inside masks with two membranes for easy air circulation and mist prevention. 2 filters carrier. Delivered without filter. Delivered in a non-woven bag.

#### EN136





**DM756C** - Rubber half-mask. **DM756S** - Silicone half-mask.

Twin filter respirator made of rubber (filters sold separately). Double support system made from a harness attached to the top and back of the head plus an elastic band. This system ensures a safe and perfect fit of the device. Exhalation valve for better breathing.

#### Delivered with two adaptors and prefilters

#### EN140



References	Type of filters EN14387 and/or EN143 For DM756C, DM756S and MP732S
755A1	A1 filter
755A1P3	A1P3 filter
755ABEK1	ABEK1 filter
755ABEK1P3	ABEK1P3 filter
755P3	P3 filter







# Half-mask & filters - Respiratory protection

#### **DM761C**

Single filter respirator made of natural rubber (filter sold separately).

Double support system made of a harness attached to the top and back of the head plus an elastic band. This system will give a safe and perfect fit of the device. Exhalation valves for better breathing.

Delivered with one adaptor and one prefilter.

EN140



#### **DMCAG**

DM761C evacuation mask with hood. Filter sold separetely.

EN140









#### **SACKIT**

Carriage bag with belt loop.



References	Type of filters EN141 or EN143 for DM761C
760A1	A1 filter
760ABEK1	ABEK1 filter
760P3	P3 filter





## Leather gloves - Canadian style

#### **501S**

COW SPLIT.

Cotton lined palm. Leather fingertips.

Cotton fabric back with leather knuckle patch reinforcement. Safety rubberized cuff.







SINGER®







#### **5010RD**

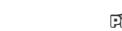
COW SPLIT.

Cotton lined palm. Leather fingertips. Striped cotton fabric back with leather knuckle patch reinforcement. Safety cuff.









#### **501SRS**

COW SPLIT.

With split reinforcement on palm.

Cotton lined palm. Leather fingertips. Cotton fabric back with leather knuckle patch reinforcement.

Safety rubberized cuff.





10x10 10 10



SINGER®

#### **501SYRGY**

COW SPLIT.

Yellow colour leather. With grain reinforcement on palm.

Cotton lined palm. Leather fingertips.

Cotton fabric back with leather knuckle patch reinforcement. Safety rubberized cuff.







WITH REINFORCEMENT AND VEIN PATCH PROTECTION.

#### 501SGRSVJ

COW SPLIT.

With green split reinforcement on palm, thumb and forefinger. Cotton lined palm. Leather fingertips. Cotton fabric back with leather knuckle patch reinforcement. Safety rubberized cuff.











WITH REINFORCEMENT AND VEIN PATCH PROTECTION.

#### **501RS**

COW SPLIT.

With natural split reinforcement on palm, thumb and forefinger. Cotton lined palm. Leather fingertips. Cotton fabric back with leather knuckle patch reinforcement. Soft safety canvas cuff.













SOFT GRAIN LEATHER, **LEATHER VEIN PATCH** 

PROTECTION.

#### 501N

COW GRAIN.

Cotton lined palm. Leather fingertips.

Cotton fabric back with leather knuckle patch reinforcement. Safety rubberized cuff.











#### **502YBCTHB**

**COW GRAIN** 

Yellow cow grain leather palm.

Straight thumb. With leather vein patch.

Fully Thinsulate™ lined. Knitted wrist.

























**AGN102** 

SHEEP SKIN LEATHER. All sheep leather. Shirred elastic back.



10x10 7, 8, 9, 10



SINGER®

FINENESS AND ERGONOMICS



#### **AGN105**

SHEEP SKIN LEATHER. Sheep leather palm. Cotton interlock back. Shirred elastic back.











SOFTNESS AND RESISTANCE

### **CHV114**

### GOATSKIN LEATHER.

Full grain goatskin leather. Elastic knitted wrist. Leather vein patch protection with buttonhole.











### CHV56IR

### GOATSKIN LEATHER.

Grain goatskin leather palm. One piece leather forefinger. Red cotton interlock back with leather fingertips. Shirred elastic back. Gunn cut.



2.1.2.1









### CHV56IB

### GOATSKIN LEATHER.

Grain goatskin leather palm.

One piece forefinger.

Blue interlock back with leather fingertips.

Elasticated back. Gunn cut.













# Leather gloves - Drivers

### **56GN**

NATURAL COW GRAIN LEATHER.

All grain leather. One piece forefinger. Shirred elastic back.

Red hem at wrist.



2.1.2.2





SINGER®

AVAILABLE IN VERY LARGE SIZES



### **50F**

NATURAL COW GRAIN LEATHER.

All grain.

Shirred elastic back.

Red hem at wrist.











### **56GY**

YELLOW COW GRAIN LEATHER.

All grain leather. One piece forefinger.

Shirred elastic back.

Red hem at wrist.







SINGER®



### 50EFJ

YELLOW COW GRAIN LEATHER. All grain. Shirred elastic back. Red hem at wrist.













### 50GB

BEIGE COW GRAIN LEATHER. All grain. Very soft. Shirred elastick back.







SINGER®



### **50GBBC**

BEIGE COW GRAIN LEATHER. All grain. Very soft. Elastic knitted wrist. Leather vein patch protection with buttonhole.







SINGER®



### **50EFBBC**

BEIGE COW GRAIN LEATHER. All grain. Very soft. Elastic knitted wrist. Leather vein patch protection with buttonhole.











# Leather gloves - Drivers

### 56GSN

NATURAL COW GRAIN LEATHER PALM. Split leather back. One piece forefinger. Shirred elastic back. Red hem at wrist.











### **50FC**

NATURAL COW GRAIN LEATHER PALM. Split leather back. Shirred elastic back. Red hem at wrist.











### **56S**

SPLIT COW LEATHER. All split. One piece forefinger. Shirred elastic back. Red hem at wrist.











### **50GHB**

COW GRAIN LEATHER PALM.

### WATER-REPELLENT.

All grain leather. Shirred elastic back.









SINGER®



### **50HB**

COW GRAIN LEATHER PALM.

### WATER-REPELLENT.

All grain leather. Shirred elastic back.







# Leather gloves - Drivers

### **50GHBBC**

COW GRAIN LEATHER PALM. WATER-REPELLENT.

All grain leather. Elastic knitted wrist. Leather vein patch protection with buttonhole.







SINGER®



### **50HBBC**

COW GRAIN LEATHER PALM. WATER-REPELLENT.

All grain leather. Elastic knitted wrist. Leather vein patch protection with buttonhole.









SINGER®



SHIP SKIN LEATHER: FIRST-RATE COMBINATION OF SOFTNESS AND RESISTANCE.

### CHV114HB

FULL GRAIN GOAT SKIN. WATER-REPELLENT.

Elastic knitted wrist.

Leather vein patch protection with buttonhole.











### **56GYP**

FULL COW GRAIN LEATHER.

Fully cotton fleece lined. Shirred elastic back. One piece leather forefinger. Red hem at wrist.













### **56GYPA**

FULL COW GRAIN LEATHER.

Fully fur acrylic boa lined. Shirred elastic back. One piece leather forefinger. Red hem at wrist.













### **50GHNTH**

FULL COW GRAIN LEATHER. Fully Thinsulate® lined.

Water-repellent.

Shirred elastic back.

(Thinsulate® is a trademark of 3M).









SINGER®

THINSULATE

**LINED**®



# Leather gloves - Welders

### 51G15

FULL COW GRAIN LEATHER. Split leather cuff. 15 cm cuff.





2.1.2.1 4.1.3.X.4.X EN12477 TYPE A





SINGER®



SOFTNESS AND ERGONOMICS

### **AGN106**

FULL SHEEP SKIN LEATHER. Fourchettes pattern. Split leather cuff of 14 cm.







SINGER®



SOFT AND RESISTANT

### **CHV106**

FULL GOAT SKIN LEATHER. Fourchettes pattern. Split leather cuff of 14 cm.









### 51GS10

COW GRAIN LEATHER PALM. Split leather back and cuff. 10 cm cuff.











COW GRAIN LEATHER PALM. Split leather back and cuff. 15 cm cuff.







2.1.2.2 4.1.3.X.4.X EN12477 TYPE A





SINGER®

### 51GS20

COW GRAIN LEATHER PALM. Split leather back and cuff. 20 cm cuff.





2.1.2.2 4.1.3.X.4.X EN12477 TYPE A













# Leather gloves - Welders

### **51S15**

COW SPLIT. 15 cm cuff.





3.1.2.2 4.1.3.X.4.X EN12477 TYPE A



5x10 🗐 10 🕢



SINGER®



### 51EC15

ALL COW SPLIT. 15 cm leather cuff.



3.1.2.2









### 51EFC15

NATURAL COW GRAIN LEATHER PALM. Split leather back. 15 cm split leather cuff.













All cow split leather. Reinforced with a second layer of leather on palm, thumb and forefinger. Sewn with aramid yarn.

### **51SOUD**

Full cotton lined. 35 cm length.





4.2.1.2 3.1.3.X.4.X EN12477 TYPE A













### 51SIREP15KV

ALL COW SPLIT LEATHER. ARAMID YARN. Fully cotton lined. 35 cm length.













### **51SIREP15**

ALL COW SPLIT LEATHER. POLYESTER THREAD. Fully cotton lined. 35 cm length.











SINGER®

Also available in left hand only (sold by piece in that case),

ref 51SIREP15MG



5x20







### **51SIVP15**

ALL COW SPLIT LEATHER. POLYESTER THREAD. Fully cotton lined. 35 cm length.





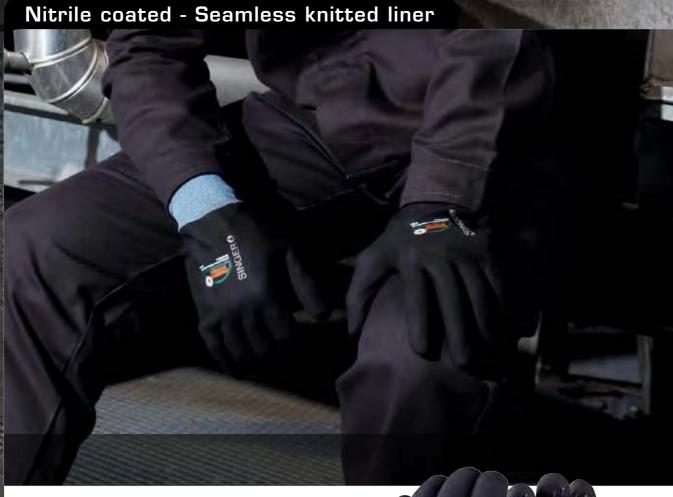












# Nymfit Collection

Liners made from polyamide / Elastane which gives good fit and sensitivity, superior comfort and dexterity.

Soft, foam nitrile coating on palm and polymer dots not only enhances protection but it also provides good wet grip by channeling away excess fluid from the surface. Glove provides good protection in dry handling conditions.

### NYMFIT02

Fully coated. Dots on palm. 15 gauge.









SINGER®



Nitrile dots on palm.

### **NYMFIT00**

15 gauge. Coated palm. Dots on palm.









### NYMFIT01

15 gauge. 3/4 coated. Dots on palm.













### NYMFIT03

15 gauge. Coated palm. Without dots.











### NYMFIT04

15 gauge. 3/4 coated. Without dots.

















10x10 7, 8, 9, 10, 11



### NYM213NIF

15 gauge. Seamless knitted liner. Nitrile foam on palm. Open back.

Elasticated wrist.

Black colour.





10x10 7, 8, 9, 10





NITRILE FOAM



### **NX10**

### BI-POLYMER.

Seamless knitted glove in polyamide/Spandex mixed fibres. 15 gauge. Bi-polymer knuckle coated: provides unsurpassed softness (PU), durability and resistance against oils (nitrile). Silicone and DMF free coating. Treated with Actifresh®.







10x10 7, 8, 9, 10





### NYM13NIG

POLYAMIDE LINER WITH NITRILE COATING. Open back. 13 gauge. Elasticated wrist. White colour, grey coating.











SINGER®

### NYM73NIG

POLYESTER LINER WITH NITRILE COATING. Open back. 13 gauge. Elasticated wrist. White colour, grey coating.















# Nitrile coated - Seamless knitted liner

### NYM213NIB

POLYAMIDE LINER WITH NITRILE COATING ON PALM. 13 gauge. Elasticated wrist. Black colour.





10x10 7, 8, 9, 10, 11 SINGER\*





### NYM13GB

POLYAMIDE LINER. NITRILE COATED ON PALM. 13 gauge. Elasticated wrist. Grey colour, black coated.





10x10 7, 8, 9, 10, 11 SINGER®





POLYAMID LINER - NITRILE COATED 3/4 COATED.

15 gauge. Elasticated wrist. Black colour.









SINGER®

### NYM157NB

POLYAMIDE LINER WITH NITRILE COATING. 15 gauge. Elasticated wrist. Black colour. Fully coated.

















**GRIPTOP** 

NITRILE DOUBLE COATING GLOVE. POLYAMIDE LINER.

13 gauge. Unique nitrile double coating palm. One first smooth grey coating with an additional black foam coating. Knuckle coating version. Open back (ventilated). Elasticated knitted wrist.







DEXTERITY AND GOOD GRIP

### **NBR126**

COTTON INTERLOCK LINER. KNITTED WRIST. Ultra-light coating. Open back.







10x10 7, 8, 9, 10



SINGER®

### **NBR1126J**

COTTON INTERLOCK LINER. Knitted wrist. Ultra-light coating. Open back.

















### **NBR226**

COTTON INTERLOCK LINER. Knitted wrist. Light coating. Open back.









SINGER®

### **NBR1126B**

COTTON INTERLOCK LINER. Knitted wrist. Ultra-light coating. Open back.





10x10 7, 8, 9, 10





### **NBR227**

COTTON INTERLOCK LINER. Knitted wrist. Light coating. Fully dipped.

















### NBR426VR

COTTON INTERLOCK LINER.

Knitted wrist.

Heavy coating. Open back.

Terry reinforced between thumb and finger.















### **NBR228**

COTTON INTERLOCK LINER. Gauntlet style. Light coating. Fully dipped. Length: 27 cm.













### **NBR326**

COTTON FLEECE LINER. Knitted wrist. Heavy coating. Open back.













### **NBR9326**

COTTON FLEECE LINER. Knitted wrist. Heavy coating. Open back.











### **NBR1326**

COTTON FLEECE LINER. Knitted wrist. Heavy coating. Open back.















### **NBR327**

COTTON FLEECE LINER.

Knitted wrist.

Heavy coating.

Fully dipped.













### **NBR9327**

COTTON FLEECE LINER.

Knitted wrist.

Heavy coating.

Fully dipped.













### **NBR1327**

COTTON FLEECE LINER.

Knitted wrist.

Heavy coating.

Fully dipped.













### NBR326T

COTTON FLEECE LINER. Canvas safety cuff. Heavy coating.

Open back.









SINGER®



### **NBR9326T**

COTTON FLEECE LINER. Canvas safety cuff. Heavy coating. Open back.





10x10 7 9, 10







### NBR327T

COTTON FLEECE LINER. Canvas safety cuff. Heavy coating. Fully coated.













### **NIT2018**

SPECIAL CLEANING IN AGGRESSIVE ENVIRONMENTS.

Nitrile. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip.Length: 330 mm (\*).

Thickness: 0,45 mm (\*).

















### NIT2040

SPECIAL CLEANING IN AGGRESSIVE ENVIRONMENTS.

Nitrile. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip. Length: 410 mm (\*).

Thickness: 0,52 mm (\*).



















### NIT15

SPECIAL CLEANING IN AGGRESSIVE ENVIRONMENTS.

Nitrile. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip. Length: 330 mm (\*).

Thickness: 0,38 mm (\*).



















# Neoprene flocklined - With liner





MULTI-RISK CHEMICAL / COLD / WARM

Unique and original! Equipped with an acrylic terry lining for a good insulation protection (cold / heat).



### **NE05040**

SPECIAL CLEANING IN AGGRESSIVE ENVIRONMENTS.

Polychloroprene. Embossed diamond pattern on palm and fingers for better grip.

With acrylic terry lining.

Length: 380 mm (\*). Thickness: 0.68 mm (\*).

















### **NE01830**

NEOPRENE FLOCKLINED.

Fully dipped on a polyester/cotton

Knitted liner. Length: 300 mm (\*). Two colours: black/blue.



















### **NEO400**

SPECIAL CLEANING IN AGGRESSIVE ENVIRONMENTS. Polychloroprene. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip. Length: 330 mm (\*). Thickness: 0.68 mm (\*).









10x10 7, 8, 9, 10, 11







### **NEO270**

SPECIAL CLEANING IN AGGRESSIVE ENVIRONMENTS.

Mixed latex/polychloroprene. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip. Length: 320 mm (\*). Thickness: 0.68 mm (\*).

















### **NE02040**

SPECIAL CLEANING IN AGGRESSIVE ENVIRONMENTS. Neoprene. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip. Length: 410 mm (\*). Thickness: 0.68 mm (\*).

























# **Force Technologie Innovation**

The gloves are machine knitted liners made of two layers. Outer layer is 100% polyamide with soft, textured natural rubber coating and inner layer is 100% acrylic. Soft foam natural coating not only enhances protection but it also provides good wet grip by channeling away excess fluid from the surface. Glove provides excellent comfort, dexterity and good protection against abrasion and tear in dry handling conditions.

### **SNOWFLEX**

Fully coated.













### TAC10RED

ACRYLIC LINER. SOFT FOAM LATEX COATING ON PALM. Special long elastic knitted wrist. 10 gauge. The inside surface is a brushed terrycloth.















### TAC10GB

MIXED ACRYLIC/COTTON/ POLYESTER TERRY LINER. Crinckle latex coating on palm. Knitted wrist.10 gauge.













SINGER®

### TAC10GT

ACRYLIC LINER. CRINCKLE LATEX COATING ON PALM. Special long elastic knitted wrist 10 gauge. The inside surface is a brushed terrycloth.

















# Latex coated - Seamless knitted liner

### **TAC1025V**

POLYESTER/COTTON LINER. Knitted wrist.

Crinckle latex coating on palm. 10 gauge.







SINGER®



POLYESTER/COTTON LINER.

Knitted wrist.

Crinckle latex coating on palm. 10 gauge.







SINGER®



POLYESTER/COTTON LINER. Crinckle latex coating on palm. Knitted wrist.

Fully coated thumb.

10 gauge.









### TAC20BL

POLYESTER LINER WITH LATEX COATING. Elasticated wrist. 10 gauge. 3/4 coated. Blue Colour.









SINGER®

### TAC10BL

POLYESTER LINER WITH LATEX COATING. Elasticated wrist. 10 gauge. Open back. Blue Colour.





10x10 7, 8, 9, 10





### **TAC700**

POLYESTER/COTTON LINER WITH MIXED LATEX / NITRILE COATING ON PALM. Elasticated wrist. 10 gauge. Natural colour liner with blue colour coating.











# Latex coated - Seamless knitted liner



### NYM15HVG

POLYAMIDE LINER WITH LATEX COATING. Elasticated wrist.

15 gauge. Yellow Colour, black coating.







SINGER®



### NYM73HVN

POLYESTER LINER WITH LATEX COATING. Elasticated wrist.

13 gauge. Yellow colour, black coating.



3.1.3.1









### NYM73LN

POLYESTER LINER WITH LATEX COATING. Elasticated wrist.

13 gauge. Black colour.



3.1.3.1





**HEAVY** WORK



### **TAP7325**

ACRYLIC/POLYESTER LINER.

Thick laminated latex coating on palm. Rubber reinforcement between thumb and forefinger. 7 gauge.















SINGER\*\*



### LAT3130

FULLY DIPPED 30 CM. Rough finish palm. Cotton interlock liner.



















FULLY DIPPED 30 CM. Smooth finish. Cotton interlock liner.





















OPEN BACK. Knitted wrist. Interlock cotton liner. Crinkle finish palm.











SINGER®

CRINKLE FINISH





# Latex - Unsupported

### LAT2005

SPECIAL CLEANING. Natural latex. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip. Length: 300 mm (\*). Thickness: 0.45 mm (\*).















### **LATCLARA**

Natural latex. Cotton flock-lined. Embossed diamond pattern on palm and fingers for better grip. Cotton flock-lined. Length: 300 mm (\*). Thickness: 0.30 mm (\*).







SINGER®



### **LATLENA**

Embossed diamond pattern on palm and fingers. Natural latex. Cotton flock-lined. Length: 305mm (\*). Thickness: 0.30 mm (\*).







12x12 7, 8, 9, 10









## Latex - Unsupported

#### LAT2004

Natural latex. Unlined.

Embossed diamond pattern on palm and fingers

for better grip.

Length: 280 mm (\*). Thickness: 0.39 mm (\*).

















Natural latex. Unlined.

(only for the protection against electric discharges).

Reference	Tested to	Tension of use	Class
LAT1025	2500 V	500 V	00
LAT1050	5000 V	1000 V	0
LAT1100	10000 V	7500 V	1
LAT1200	20000 V	17000 V	2
LAT1300	30000 V	26500 V	3









#### **LAT460**

SPECIAL SANDBLASTING. Unlined 600 mm latex glove. Palm and back of the hand with crinkle finish. Smooth cuff. Rolled cuff. Beige colour.



















# **H.P.T™** technology

CFT: Compressed Formula Technology.  $HPT^{TM}$  (Hydropellent Technology $^{TM}$ ) coating. Creates a spongy, soft, durable, flexible coating that repels liquids to provide a firm wet or dry grip. Encapsulated air molecules provide an inherent vibration absorption feature.

#### **NYMR15CFTN**

POLYAMIDE LINER WITH PVC CFT HPT $^{\text{TM}}$  TECHNOLOGY COATING. 15 gauge. Elasticated wrist.















#### NYMV15CFTN

Polyamide liner with PVC CFT HPT™ TECHNOLOGY coating. 15 gauge. Elasticated wrist.



















Polyamide liner with PVC CFT HPT™ TECHNOLOGY coating. HYDROPELLENT TECHNOLOGY

P.V.C dots on palm.















Polyamide liner with PVC CFT HPT™ TECHNOLOGY coating. Ultra light 18 gauge. Knitted wrist



























18 GAUGE Ultra-thin

# **NINJA ICE Double layer conception**



#### NIOO

Two-layers insulated liner provides warmth with uncompromising flexibility. 15 gauge. Warm brushed lining. Knitted wrist. The unique formulation coating remains soft and flexible in temperature as low as -50°C. Treated with Actifresh®.





ASTM/CPPT:







10x5 7, 8, 9, 10, 11, 12











**N10** 

Polyamide seamless knitted glove.15 gauge. HPT™ coating (Hydropellent Technology). Knuckle coated. Elasticated wrist. Treated with Actifresh®.



















## PVC dipped - Seamless knitted liner

### **FULLY TRIPLE DIPPED.**

100% COTTON FLEECE SEAMLESS LINER. SANDY FINISH PALM.

#### PVC525K

25 cm length.













## SINGER®



#### PVC530K

30 cm length.















#### PVC535K

35 cm length.

















#### **PVCKREM**

Fully dipped on a seamless knitted liner. Triple dipped. 30 cm length. Sandy finish palm. Smooth finish gauntlet. Removable acrylic/wool fur lining for easy washing and drying. Blue colour.





















Removable fur



### **FULLY DOUBLE DIPPED.**

100% COTTON FLEECE LINER. SANDY FINISH PALM.

#### PVC3028

27 cm length.













SINGER®

#### **PVC3040**

35 cm length.













#### PVC3045

40 cm length.

















### **PVC3528F**

DOUBLE DIPPED ON STRETCH LINER. 27 cm length.

























Double dipped. Special low temperatures!









## PVC dipped - Cut and sewn liner

**FULLY SIMPLE DIPPED.**100% COTTON INTERLOCK LINERS.



Rough finish. 27 cm.













Smooth finish. 27 cm.



**PVC728** 

































Smooth finish. 40 cm.





Smooth finish. 58 cm.





**PVC775** Smooth finish. 72 cm.











**PVC740** 

















SINGER®

SINGER®

SINGER®



OPEN BACK smooth finish. 100% cotton interlock liner.









OPEN BACK smooth finish. 100% cotton interlock liner.





















**PVC5227** 

**PVC GLOVES** smooth finish. 27 cm - Fully dipped.













#### **PVC5235**

**PVC GLOVES** smooth finish. 35 cm - Fully dipped.















## PU coated - Seamless knitted liner

#### **NLOO**

18 GAUGE.

Ultra light blue polyamide shell for second skin sensitivity. PU coated palm. Approximately 30%lighter than traditional polyamide/PU gloves providing unparalleled tactile sensitivity. Open back. Coated fingertips version. Elasticated wrist.









#### **NL10**

18 GAUGE.

Ultra light blue polyamide shell for second skin sensitivity. PU coated palm. Approximately 30% lighter than traditional polyamide/PU gloves providing unparalleled tactile sensitivity. Open back. Knuckle coated version. Elasticated wrist.











MIXED POLYAMIDE/ACRYLIC FLEECE LINER WITH POLYURETHANE COATING.

Elasticated wrist. Glove store heat to help regulate warmth in dry environments.

Gloves are very soft and comfortable.













#### NYM213PU

POLYAMIDE LINER WITH POLYURETHANE COATING. Elasticated wrist.

13 gauge.









#### NYM713PU

POLYESTER LINER WITH POLYURETHANE COATING. Elasticated wrist.

13 gauge.









#### NYM13F

POLYAMIDE LINER WITH POLYURETHANE COATING.

Elasticated wrist.

13 gauge.

Polyurethane coating on fingertips.













#### NYM213PUG

POLYAMIDE LINER WITH POLYURETHANE COATING. Elasticated wrist 13 gauge.





10x10 7, 8, 9, 10, 11







#### NYM713PUG

POLYESTER LINER WITH POLYURETHANE COATING. Elasticated wrist. 13 gauge.











### NYM713PUB

POLYESTER LINER WITH POLYURETHANE COATING. Elasticated wrist 13 gauge.













## Cut resistant - Seamless knitted liner

#### SGD10PUG

CUT LEVEL 5 (EN388).

Liner made of HDPE (High Density Polyethylene) fibres and glass fibres. Grey polyurethane coating on palm. 10 gauge. Elasticated wrist. Cut index 51.6 namely more than 2 times the minimum index required by the standard EN388 (index 20 is required to obtain the level 5).



ASTM/CPPT:









10x1 7, 8, 9, 10, 11





CUT LEVEL 5 (EN388).

Seamless knitted glove. 13 gauge. Glass and Lycra fibers liner, wrapped with HDPE and polyamide thread. Polyurethane coating on palm and fingertips. Open back. Elasticated wrist. High mechanical resistances.



ASTM/CPPT:

4.5.4.3



10x10 7, 8, 9, 10





LONG KNITTED WRIST. UNIQUE REINFORCED SEAM BETWEEN THE THUMB AND THE FOREFINGER.

### PHD305PU

CUT LEVEL 5 (EN388).

Liner made of HDPE fibers (High Density Polyethylene) and other fibers. Hard-wearing material reinforcement between thumb and forefinger. Polyurethane coated on palm. 13 gauge. Open back. Long knitted wrist.











PHD135PU

CUT LEVEL 5 (EN388).

HDPE liner (High Density Polyethylene). 13 gauge. Knitted wrist.

Polyurethane coated palm. Open back.



4.5.4.3





## Cut resistant - Seamless knitted liner



#### PHD5PU

CUT LEVEL 5.

Grey colour. HDPE fibres liner (High Density Polyethylene). Polyurethane coated palm. 13 gauge. Elasticated wrist.





10x10 7, 8, 9, 10, 11 SINGER®





### PHD315PU

CUT LEVEL 5.

Liner made of HDPE fibers (High Density Polyethylene). 13 gauge. Knitted wrist. Polyurethane coated palm.













# Cut resistant - Seamless knitted liner



HDPE fibres liner (High Density Polyethylene). Crinckle latex coated palm. 13 gauge. Elasticated wrist.







SINGER®



HDPE fibres liner (High Density Polyethylene). Nitrile foam coated palm. 13 gauge. Elasticated wrist.











The outer layer of high density polyethylene (HDPE) provides excellent protection against mechanical risks. The insertion of an intermediate layer in nitrile provides protection against certain chemicals.

The inner layer of cotton, associated to the other layers, allows protection against contact heat. Finally, the palm of the glove is coated with nitrile dots for enhanced grip.



















Nitrile

dots on palm.



#### **TSP613**

CUT LEVEL 5.

HDPE (High Density Polyethylene) liner. 13 gauge. White colour. Ambidextrous. Elasticated wrist. Delivered with an inner cotton glove. Sold by piece.



ASTM/CPPT: Cut level 3











### TKV345(\*)

CUT LEVEL 5.

10 gauge. Blended fibres: Kevlar®, steel and other fibres. Soft rubber knuckle coated. Elasticated wrist.

















#### TKV105(\*)

CUT LEVEL 5.

10 gauge. Blended fibres: Kevlar®, steel and other fibres. Soft rubber coating on palm. Elasticated wrist.















#### TKV10LAT(\*)

CUT LEVEL 4.

10 gauge. Kevlar® liner. Blue rubber coating on palm. Elasticated wrist.











## Cut resistant - Seamless knitted liner



Layer made of 100% cotton to offer comfort and insulation

#### TKV7P (\*)

CUT LEVEL 5. CONTACT HEAT LEVEL 3.

7 gauge. Knitted glove made of two layers. Outside layer made of 100% Kevlar®. Inside layer made of 100% cotton to assist in ventilation, comfort and insulation. Reversible. 34 cm length.





ASTM/CCPT: 2.5.4.1 4.3.4.3.2.X. Cut level 4











KEVLAR®

## TKV10NIG(\*)

CUT LEVEL 4.

10 gauge. Kevlar® liner. Nitrile coating on palm. Elasticated wrist.



ASTM/CPPT: 4.4.4.3 Cut level 2



10x10 🗐 8(M), 9(L), 10(XL) 👄





#### TKV10HBKL(\*)

CUT LEVEL 3.

10 gauge. Kevlar® liner. Black PVC dots on palm. Elasticated wrist.





ASTM/CPPT:

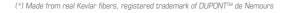












#### NFB10B

CUT LEVEL 4.

Glass fibres mixed with other synthetic fibres. BI-POLYMER coated palm (PU/nitrile). Elasticated wrist. (Provides unsurpassed softness and durability). 10 gauge.











BI-POLYMER

BI-POLYMER

#### **NX410**

CUT LEVEL 4.

Seamless knitted glove made of wrapped synthetic and glass fibres. 13 gauge. High mechanical resistance, cut level 4. Bi-polymer knuckle coated: provides unsurpassed softness (PU), durability and resistance against oils (nitrile).

Silicone free and DMF free coating.

Treated with Actifresh®



ASTM/CPPT: 4.4.3.2 Cut level 2











## **NX430**

CUT LEVEL 4.

Seamless knitted glove made of wrapped synthetic and glass fibres. 13 gauge. High mechanical resistance, cut level 4. Bipolymer fully coated: provides unsurpassed softness (PU), durability and resistance against oils (nitrile). Silicone free and DMF free coating. Treated with Actifresh®



ASTM/CPPT







10x10 7, 8, 9, 10, 11









# Cut resistant - Seamless knitted liner



#### DYN133GPUG

CUT LEVEL 3.

HDPE fibres liner (High Density Polyethylene). Polyurethane coating. 13 gauge. Elasticated wrist. Grey colour.





SINGER®



CUT LEVEL 3.

HDPE fibres liner (High Density Polyethylene). Polyurethane coating. 13 gauge. Knitted wrist. Grey colour.









HDPE fibres liner (High Density Polyethylene). Polyurethane coated palm. 13 gauge. Knitted wrist. Grey colour.



PHD3PU CUT LEVEL 3.







#### PHD313PU

CUT LEVEL 3.

Grey colour. Liner made of HDPE fibers (High Density Polyethylene) Polyurethane coating on palm. Open back. 13 gauge. Elasticated wrist.







## P.V.C dotted - Seamless knitted liner

#### TCC507HB TCC507FB

AMBIDEXTROUS

POLYESTER/COTTON.

7 gauge. Knitted wrist. Two sided blue PVC dots.





10x10 Men's: TCC507HB Ladies: TCC507FB



SINGER®



# TCC207HB TCC207FB

AMBIDEXTROUS RECYCLED FIBRES

POLYESTER/COTON.

7 gauge. Knitted wrist. Blue colour. Two-sided blue PVC dots.





10x10



Men's: TCC207HB Ladies: TCC207FB







#### TCC513HB TCC513FB

AMBIDEXTROUS

POLYESTER/COTON.

13 gauge. Ambidextrous. Elasticated wrist. Two sided blue PVC dots.







Men's: TCC513HB Ladies: TCC513FB



SINGER®



**TBC** 



SPECIAL COLD

With interior warm terry lining.

Elasticated wrist.

Blue PVC dots on palm. 13 gauge.

Rubber coating reinforcement between thumb and forefinger.











#### NYM1344BD

STRETCH NYLON.

Blue PVC dots on palm. Elasticated wrist. 13 gauge.











### NYM13214

STRETCH NYLON/COTTON.

Plaited: stretch nylon outer, cotton inner. Blue PVC dots on palm. Elasticated wrist. 13 gauge.





10x10 S(7.5), M(8), L(8.5), XL(9)



SINGER®



#### NYM7241

STRETCH NYLON/COTTON.

Plaited: stretch nylon outer, cotton inner. Red PVC dots on palm. Elasticated wrist. 7 gauge.











## P.V.C dotted - Seamless knitted liner

#### TC507HB TC507FB

POLYESTER/COTTON.

Elasticated wrist. Blue PVC dots on palm. 7 gauge.





Men's: TC507HB Ladies: TC507FB



SINGER®

RECYCLED

**FIBRES** 



#### TC207HB TC207FB

POLYESTER/COTTON.

Knitted wrist. Blue colour. Blue PVC dots on palm. 7 gauge.



1.1.3.1





Men's: TC207HB Ladies: TC207FB







### TC510HB TC510FB

POLYESTER/COTTON.

Elasticated wrist. Blue PVC dots on palm. 10 gauge.





Men's: TC510HB Ladies: TC510FB



SINGER®



#### **PCC600** PCC60008

P.V.C CRISS-CROSS.

Ambidextrous. Acrylic/polyester fibres. Double side. PVC crossing. 7 gauge. Elasticated wrist.





10x10 Men's: PCC600 Ladies: PCC60008





Flexible and resistant, the Mechanics gloves are adapted for many activities: operating machines, handling objects, sports, leisure...

Through the choice of quality materials and excellent workmanship, the mechanics gloves are particularly comfortable and adapt ideally to the contours of the hand. They guarantee excellent dexterity to the user. The various forms of reinforcement on the palm ensure a longer life and excellent protection.











MC6022

Palm: 65% nylon, 35%. PU. Back: 97% polyester, 3% Spandex. Polyester self-grip adjustement at wrist.









## Uncoated - Seamless knitted liner

#### NYM13440

STRETCH NYLON.

Ambidextrous. Elasticated wrist. 13 gauge.



1.1.4.2



10x10 M(9), L(10), XL (11) SINGER\*



#### **NYM13DME**

STRETCH NYLON.

Same as NYM13440 but lighter weight. 13 gauge. Ambidextrous. Elasticated wrist.







#### **THR713**

MIXED COOLMAX®/ELASTANE.

Ambidextrous. Elasticated wrist. Coolmax® is a brand of Invista. 13 gauge.













10x10 📶 One size only 🛞



SINGER®

#### **NY100**

NYLON.

White nylon with hemmed cuff. Fourchettes pattern.





30x10 (6, 7, 8, 9, 10, 11, 12 (1) SINGER\*(1)





## Bleached interlock cotton - Cut and sewn

#### **JB135**

BLEACHED COTTON INTERLOCK.

FINE HANDLING

35 cm length. Fourchettes pattern. Hemmed cuff.











#### **JB100**

BLEACHED COTTON INTERLOCK.

Fourchettes pattern. Hemmed cuff.





30x10 (6, 7, 8, 9, 10, 12 (1) SINGER\*(1)





BLEACHED COTTON INTERLOCK.

Fourchettes pattern. Hemmed cuff.





30x10 6, 7, 8, 9, 10, 12







BLEACHED COTTON INTERLOCK.

Fourchettes pattern. Micro white PVC dots on palm. Hemmed cuff.















## Natural interlock cotton - Cut and sewn



HEAVY FINISH

NATURAL INTERLOCK COTTON.

Two-piece reversible style. Hemmed cuff.





30x10 Men's (10) : JE200H Ladies (8) : JE200F



SINGER®



HEAVY FINISH

NATURAL INTERLOCK COTTON.

Two-piece reversible style. Knitted wrist.





30x10 Men's (10) : JE300H Ladies (8) : JE300F



SINGER®





NATURAL INTERLOCK COTTON.

Same as JE300H / JE300F but light version.





Men's (10) : JE300HL Ladies (8) : JE300FL





JE300HSL JE300FSL

**SUPER LIGHT** FINISH

NATURAL INTERLOCK COTTON.

Same as JE300 H / JE300F but super light version.





30x10 🗍

Men's (10) : JE300HSL Ladies (8) : JE300FSL







# Cotton - Cut and sewn



# 400JE 400JEF

BRUSHED COTTON JERSEY.

Knitted wrist.





30x10 Men's (10) : 400JE Ladies (8) : 400JE



SINGER®



BRUSHED COTTON JERSEY.

Knitted wrist.





30x10 Men's (10) : 400JM Ladies (8) : 400JM





## Cotton terrygloves - Cut and sewn

#### **700BM**

COTTON TERRY.

Terry, medium weight. Knitted wrist.











SINGER®



#### 700BM15BM

COTTON TERRY.

Terry, medium weight. 15 cm terry cuff.











SINGER®



#### 700BM15T

COTTON TERRY.

Terry, medium weight. 15 cm canvas cuff.











## Cotton terrygloves - Cut and sewn

### **700BL**

COTTON TERRY.

Terry, heavy weight. Knitted wrist.















#### 700BL15BL

COTTON TERRY.

Terry, heavy weight. 15 cm terry cuff.









SINGER®



#### 700BL15T

COTTON TERRY.

Terry, heavy weight. 15 cm canvas cuff.













SINGER\*\*



# Cotton woven - Single and double layer

PAINTING



P754-15

COTTON CANVAS. SINGLE LAYER.

Nap-in. 15 cm gauntlet.









30x10 10 6 SINGER®

Nap-in. Knitted wrist.

P754H P754F





COTTON CANVAS.

SINGLE LAYER.

30x10 Men's (10) : P754H Ladies (8) : P754F



SINGER®



Double layer Nap-in, nap-out.



HOT-MILL DOUBLE LAYER CANVAS.

Nap-in, nap-out. 8 cm gauntlet.











SINGER®





HOT-MILL

CANVAS.





10x10 10 0 SINGER®

#### **T700BL**

COTTON TERRY.

Terry, heavy weight. Knitted wrist. 15 gauge.







10x10 10 0







#### T301H T301F

Seamless knitted cotton glove. Reversible. Elasticated wrist. Coloured overcast. 7 gauge.





Men's: T301H Ladies: T301F







#### **T301HL** T301FL

Seamless knitted cotton glove. Reversible. Elasticated wrist. Coloured overcast. 10 gauge.





Men's: T301HL Ladies: T301FL





RECYCLED FIBRES



# T207H T207F

Polyester/cotton seamless. Knitted wrist. Grey colour. 7 gauge.





Men's: T207H Ladies: T207F



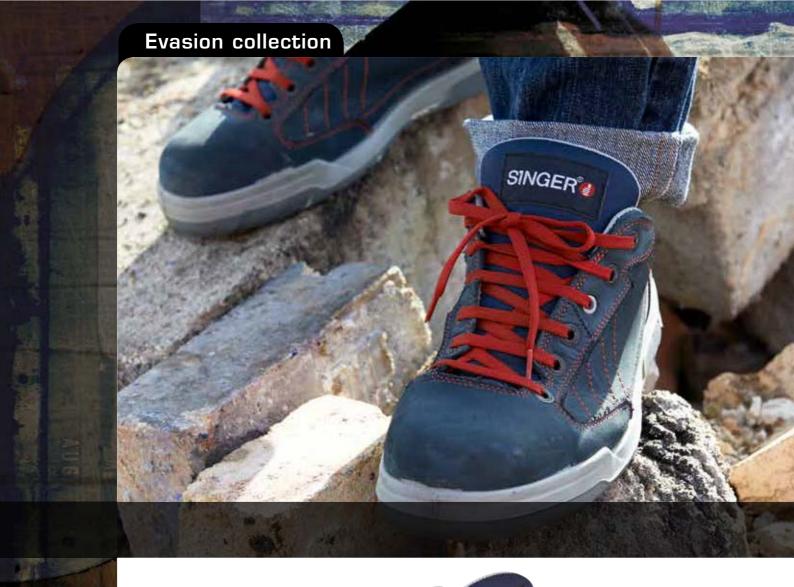












Textile pierce resistant midsole Composite toecap

### **BARY**

Low cut trendy safety trainers. Waterproof nubuck leather upper. Padded tongue.

Mesh lining.

Non metallic pierce resistant midsole and composite toe cap.

Fully removable, antistatic perforated EVA insole Fastening by eyelets and flat laces.

Dual density PU outsole.

Blue colour upper. Red colour laces and stitching.





























Fastening EN ISO 20345 (S3 SRC)

S1-P SRC

#### **ARIANO**

Low cut.

Modern and attractive model. Upper in textile and «action» Nubuck leather. Padded tongue.

Mesh lining.

Black, grey and orange colours. Full piece removable footbed. Pierce resistant midsole and safety toe cap.

Other: pre-shaped insole, entirely removable, anti-static.

Retro-reflective tapes.

Sole	Nitrile rubber + EVA + TPU
Fastening	Laces and hooks
Standard	EN ISO 20345 (S1- P SRC)













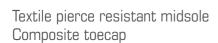












#### **ASCOLI**

Low cut.

Sporty and dynamic model.

Textile and grain leather upper.

Padded tongue.

Mesh lining.

Black, grey and red colours.

Full piece removable footbed.

Pierce resistant midsole and safety toe cap.

Other: pre-shaped insole, entirely removable, anti-static.

Sole	Nitrile rubber + EVA + TPU
Fastening	Laces and textile loops
	- -

























## The essentials

Textile pierce resistant midsole Composite toecap

#### **IMOLA**

Safety ankle boot.

Full grain leather.

Black colour.

Padded tongue and collar.

Full piece removable footbed.

Pierce resistant midsole and safety toe-cap.

Energy absorbing heel.

Other: thick soft and resistant leather.

Tongue gusset.

Sole	Polyurethane double-density
Fastening	Laces, eyelets and hooks
Standard	EN ISO 20345 (S3 SRC)

























Textile pierce resistant midsole Composite toecap

#### **PADOVA**

Low cut shoe.

Full grain leather.

Black colour.

Padded tongue and collar.

Full piece removable footbed.

Pierce resistant midsole and safety toe-cap.

Energy absorbing heel.

Other: thick soft and resistant leather.

Tongue gusset.

Sole	Polyurethane double-density
Fastening	Laces and eyelets
Standard	EN ISO 20345 (S3 SRC)





























S3 SRC

#### Pierce resistant midsole Composite toecap

#### **MONZO**

High cut safety shoes. Upper in soft grain leather. Top of upper with beige mesh lining. Full piece removable footbed. Composite toecap. Pierce resistant midsole. Energy absorbing heel.

Retro-reflective piping.

Polyurethane (PU) double density sole.

Fastening with laces and hooks.

Brown colour.

Sole	Polyurethane double-density
Fastening	D ring and lacing system
Standard	EN ISO 20345 (S3 SRC)





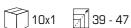
















### Pierce resistant midsole Composite toecap

#### **TRANA**

Low cut safety shoes. Upper in soft grain leather.

Top of upper with beige mesh lining.

Full piece removable footbed.

Composite toecap. Pierce resistant midsole.

Energy absorbing heel.

Retro-reflective piping.

Polyurethane (PU) double density sole.

Fastening with laces and hooks.

Brown colour.

Polyurethane double-density Sole Fastening D ring and lacing system

Standard

EN ISO 20345 (S3 SRC)























### The essentials

Textile pierce resistant midsole Composite toecap

#### **ROMA**

High cut shoe.

Leather upper.

Black and orange colour.

Top of upper with lining.

Full piece removable footbed.

Pierce resistant midsole and safety toe cap.

Energy absorbing heel.

Reinforcement at each end.

Other: seams, laces and tongue lining

with orange contrast.

Tongue gusset.

Sole	Polyurethane double-density
Fastening	D ring and lacing system
Standard	EN ISO 20345 (S3 SRC)























REINFORCEMENT AT EACH END

REINFORCEMENT

AT EACH END

S3 SRC







Textile pierce resistant midsole Composite toecap

#### **PARMA**

Low cut shoe.

Leather upper.

Black and orange colour.

Top of upper with lining.

Full piece removable footbed. Pierce

resistant midsole and safety toe cap.

Energy absorbing heel.

Reinforcement at each end.

Other: seams, laces and tongue lining

with orange contrast.

Tongue gusset.

Sole	Polyurethane double-density
Fastening	D ring and lacing system
Standard	FN ISO 20345 (S3 SBC)













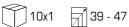














REINFORCEMENT AT EACH END

#### Textile pierce resistant midsole Composite toecap

#### **CAPRA**

High cut safety shoes.

Pigmented leather upper.

Top of upper with black mesh.

Full piece removable footbed.

Composite toecap.

Pierce resistant midsole in textile.

Energy absorbing heel.

Retro-reflective pipings.

Polyurethane (PU) double density sole.

Fastening with laces and hooks.

Tongue gusset.

Reinforcement at each ends.

Black colour.

Sole	Polyurethane double-density
Fastening	D ring and lacing system
Ctondond	ENTICO JOSAE (CO CDC)

























#### Textile pierce resistant midsole Composite toecap

#### **SIENE**

Low cut safety shoes.

Pigmented leather upper.

Top of upper with black mesh.

Full piece removable footbed.

Composite toecap.

Pierce resistant midsole in textile.

Energy absorbing heel.

Retro-reflective pipings.

Polyurethane (PU) double density sole.

Fastening with laces and hooks.

Tongue gusset.

Reinforcement at each ends.

Black colour.

Sole	Polyurethane double-density
Fastening	D ring and lacing system
C+	EN 100 0004E (00 000)

























## Classic

# REINFORCEMENT AT EACH END

#### Steel midsole and toecap

#### **ST400**

Safety trainer boot.

Upper in blue split suede leather.

Blue colour.

Deep padded collar and tongue.

Fully lined.

Pierce resistant midsole and safety toe cap.

Full piece removable footbed.

Energy absorbing heel.

Other: scuff resistant reinforcement

at toes and heel. Tongue gusset.

Sole	Polyurethane double-density
Fastening	Laces and hooks
Standard	EN ISO 20345 (S1-P SRC)

























#### Steel toecap

#### VIGO

Low cut shoe in microfibres, Moccasin style. White colour. Top of upper with lining.

EN ISO 20345 (S2 SRC).















10x1 36 - 47



S1-P SRC

# REINFORCEMENT AT EACH END

#### Steel midsole and toecap

#### **ST280**

Welder safety boot. Leather upper.

Black colour.

Top of upper with lining. Full piece removable footbed.

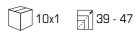
Pierce resistant midsole

and safety toe cap. Energy absorbing heel.

Other: easy closing system.

Protection against splashes.

Sole	Polyurethane double-density
Fastening	Leather cover with self-grip system
Standard	EN ISO 20345 (S1-P SRC)



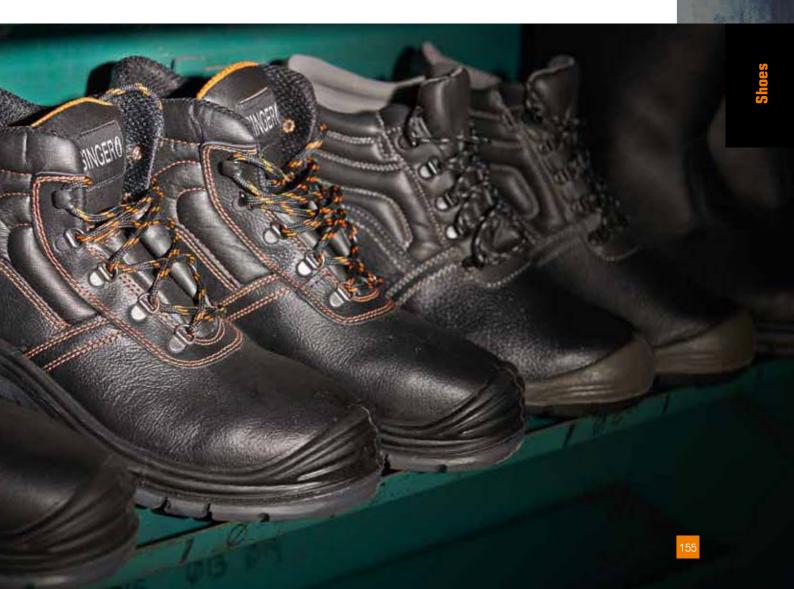












Steel midsole and toecap

#### **GR35**

High cut safety shoe. Black colour. Upper in leather. Top of upper with lining. Full piece removable footbed. Pierce resistant midsole and safety toe cap. Shock absorbing heel.

Other: grey colour lining and seams. Reinforcement at toe.

Polyurethane double-density D ring and lacing system Fastening

EN ISO 20345 (S3 SRC)























### Steel midsole and toecap

#### **GR25**

Low cut safety shoe.

Black colour.

Upper in leather.

Top of upper with lining.

Full piece removable footbed.

Pierce resistant midsole and safety toe cap.

Shock absorbing heel.

Other: grey colour lining and seams.

Sole Polyurethane double-density D ring and lacing system Fastening EN ISO 20345 (S3 SRC)



























REINFORCED TOE

S1-P SRC

#### Steel midsole and toecap

#### **GR10**

High cut safety shoe. Black colour. Upper in leather. Top of upper with lining. Full piece removable footbed. Pierce resistant midsole and safety toe cap. Shock absorbing heel. Other: grey colour lining and seams.

Sole	Polyurethane double-density
Fastening	D ring and lacing system
Standard	EN ISO 20345 (S1-P SRC)

















### Steel midsole and toecap

#### **GR20**

Low cut safety shoe. Black colour. Upper in leather. Top of upper with lining. Full piece removable footbed. Pierce resistant midsole and safety toe cap. Shock absorbing heel.

Other: grey colour lining and seams.

Sole	Polyurethane double-density
Fastening	D ring and lacing system
Standard	EN ISO 20345 (S1-P SRC)























## Classic - Boots

REINFORCEMENT AT EACH END

Textile pierce resistant midsole Composite toecap

#### **BREME**

Lined boot. Full grain water-repellent leather. Black colour. Polyurethane double-density sole. Fur acrylic lining.

Pierce resistant midsole and safety toe cap.

PU bi-densité

Standard EN ISO 20345 (S3 SRC)

























#### **BJORN**

Winter safety boot.

Upper in waterproof P.V.C.

Fully polyester lined. P.V.C/nitrile outsole.

Pierce-resistant midsole.

Safety toe cap.

Studded sole.

Wide P.V.C handles grip for easy use.

Black color.

Height: around 31 cm.

PVC/Nitrile

Standard EN ISO 20345 (S5 SRC)

















S3 SRC

Special cold











S5 SRC



**COME** High thigh boots in heavy and resistant polyester/PVC fabric (700 gsm). Welding on safety boots.

Pierce resistant midsole and safety toe cap. Front wear resistant reinforcement.

High frequency welded seams.

Large adjustable straps to fix on belt.

Kick-off heel spur for easy removal.

Textile hemmed on top edge.

90 cm height.

Green colour.



#### WIKI

Chest waders in heavy and resistant polyester/P.VC fabric (700 gsm).

Welded on safety boots.

Pierce resistant midsole and safety toe cap.

Front wear resistant reinforcement.

High frequency welded seams.

Feature elasticated braces with fix lock buckles, an internal chest pocket.

Adustable elastic drawcord at waist.

Reinforced with double layer on top edge.

Kick-off heel spur for easy removal.

143 cm height.

Green colour.



OB E SRC

#### **BOTBLANC**

Viscose lined PVC boot for food industry. White colour.

Standard



10x1 36 - 47



#### **BOTPVC**

Viscose lined PVC boot.

Green colour.

Standard



10x1 39 - 47

VISCOSE LINED PVC BOOT. GREEN COLOUR.

#### **BOTSEC**

Viscose lined PVC safety boot. Green colour.

Steel midsole and toecap.

EN ISO 20345 (S5 SRC)



38 - 47



### **Accessories**



#### Special cold

Warm winter socks. 58% acrylic, 25% wool, 17% polyamide. Terry inner surface for comfort and thermal insulation. Reinforced on high heel. Tightened on the foot for a secure fit and prevent socks from slipping in the shoe, thus eliminating any risk of heating of the foot. Good performance and good support of the metatarsus. Per pair.



SINGER®

**ACCCHAUSS** Socks for boot. Black colour. Per pair.

30x10

**[**] 01 (39-40), 02 (41-42), 03 (43-44), 04 (45-46)



for boots. Per pair.

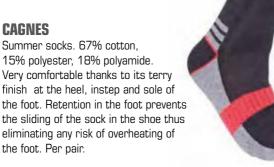


Unique



10x10

15% polyester, 18% polyamide. Very comfortable thanks to its terry finish at the heel, instep and sole of the foot. Retention in the foot prevents the sliding of the sock in the shoe thus eliminating any risk of overheating of the foot. Per pair.



01 (39-41), 02 (42-44),

03 (45-47)

10x10

01 (39-41), 02 (42-44), 03 (45-47)



#### ST2022

Deodorant properties sole made:

- A perforated upper layer of non-woven
- An intermediate layer with active carbon.
- A perforated latex lower layer. Per pair.







#### **ACCLAC**

Pair of laces. Textile material. Length 130 cm. Polybag of 10 pairs.









comfortable inner detachable Polar jacket. Numerous pockets. Retroreflective piping. Multi-use keyholder.

Colour: grey/black/red.

Parka: outshell in 100% polyester Pongee rip-stop 7 x 7 mm with PVC coating. Patch reinforcement fabric: 100% polyester Oxford with PVC coating, 360 gsm. Lining: 100% polyester Taffeta.

Features a zip access for print.

Detachable inner jacket: 100% polar fleece polyester, 96F, 280 gsm. Knitted wrist for a better insulation against cold. Pockets. Front zipper. Adjustement with drawcord and stoppers.

#### PAZ



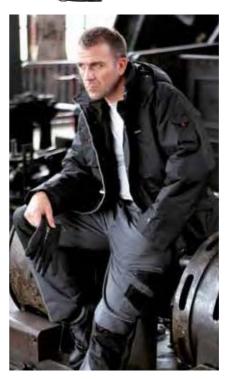








Parka - Outdoor line



Warm and comfortable coat. Detachable and adjustable hood. Numerous outer and inner pockets. Knitted wrists under adjustable sleeves. Front zipper under studded flap. Drawcord adjustment at waist. Outshell in Pongee polyester. Polyester lining and padding. Colour: black. Polyester polar body lining in the back. Waterproof 2000 mm. Features a zip access for print.

#### **PARGA**











### **PALAWA**





10x1 S, M, L, XL, 2XL, 3XL





Rip-stop polyester outshell with PVC coating. Polyester polar body lining. Polyester sleeves lining. Polyester padding. Numerous and various inner and outer pockets. Front zipper with flap. Detachable hood with polar lining, adjustable with drawcord. Adjustable sleeves. Reflective piping. Features a zip access for print. Waterproof 1000 mm. Colour: black/navy blue.

#### **PALAMA**





S, M, L, XL, 2XL, 3XL







# Parka - Technical line



Warm winter parka. 100% polyester twill Oxford PU coated. Waterproof 1000 mm. 100% polyester lined. 160 gsm polyester padding. 8 outside pockets. 1 inner pocket. Front zipper under flap with press-studs and self grip fastening . Adjustable hood with drawstring and stoppers, detachable with press-studs. Warm polar fleece lined collar. Reflective piping. Inside knitted wind cuffs. Inside elasticated waist with drawstring and stoppers. Taped seams. Features a zip access for print. Colour: grey/black.

#### **PALMA**







## Parka - Classic line



Outshell: polyamide. Lining: polyamide. Padding: polyester fibres on an aluminized film. Detachable zip-on hood. Front zipper under studded flap. Numerous pockets. Inside knitted wind cuffs.

Colour: Navy blue/royal blue.

#### **PARNEPAL**







Outshell: polyester with PVC backing. Lining: polyester. Padding: polyester. Detachable hood. Front zipper under studded flap. Various pockets. Inner knitted wind cuffs. Elasticated waist back.

Colour: Navy blue.

#### **PARTIBET**



10x1 S, M, L, XL, 2XL, 3XL







Warm jacket.

Outshell: twill Oxford polyester with PU coating. Lining: polyester. Padding: 160 gsm polyester. 7 outside pockets. 2 inner pockets.

Front zipper under studded flap and self grip fastening. Warm hood adjustable with drawstring and stoppers, detachable with press-studs and fully polar fleece lined. Warm polar fleece lined collar. Reflective piping. Elasticated waist. Features a zip access for print. Colour: grey anthracite/black.

Advantages: Functional fabrics providing high insulation against cold and wind. Keep your body warm, clean and dry. Innovative and modern design. Careful workmanship.

#### **BLIZZARD**







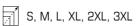


Bomber jacket. Outshell: polyester/cotton. Lining: polyester. Padding: polyester. Boa fur collar. Front zipper under studded overflap. Knitted wind cuffs. Pockets. Colour: Navy blue.

#### **BLBERGEN**



10x1







Outshell: polyester/cotton. Lining and padding: polyester. 8 outside various pockets. Detachable sleeves. Elasticated cuffs. 1 inside pocket. Color: Navy blue.

#### GIL800B





M, L, XL, 2XL, 3XL



# Bodywarmer - Industry collection



Many outer and inner pockets.

Zipper under flap with press stud and hook-and-loop straps. Elasticated waistband plus adjustement with drawstring and stoppers.

Straight up collar with comfortable fleece lining. Reflective piping in the back.

Colour: grey/black/red.

#### **GAP**









GASMA Color: black/navy blue





S, M, L, XL, 2XL, 3XL



# Bodywarmer - Polar fleece



Polyester polar fleece bodywarmer with front zipper. 330 gsm.

2 zipped waist pockets.

 $1\ chest\ pocket.\ Reinforcement\ at\ shoulders.$ 

Straight collar. Light weight, convenient and very warm!

**GEORGRIS** Colour: grey/black GEORGIA Colour: navy blue/black





SINGER®



Polyester/cotton outshell.

Lining: polyester. Padding: polyester. 2 inside pockets. Elastic waistband.

Colour: white.

#### **GILBLANC**





S, M, L, XL, 2XL, 3XL





Polyester/cotton outshell. Lining: polyester. Padding: polyester. 2 front pockets + 1 mobile pocket. 1 inside pocket. Elastic waistband Colour: navy blue.

#### **GILALPA**





10x1 M, L, XL, 2XL, 3XL





Polyester/cotton bodywarmer with collar. Polyester lining. Polyester padding. 3 outer pockets including one mobile phone pocket with flap. 1 inner pocket. Straight cut. Loins protection. Colour: navy blue.

#### GIL700B









Very practical and comfortable, the multi-pockets bodywarmer. Polyester/cotton outshell. Lining and padding in polyester. Mandarin collar with press-studs. 8 pockets. Loins protection. Front zipper under flap with press-studs.

**GILSPORTM** Colour: navy blue GILSPORTN Colour: black



M, L, XL, 2XL, 3XL



# Softshell jacket - Industry collection



Warm polar finish inside. Retro-reflective piping. Pockets. Adjustable wrists. Material: 94% polyester- 6% elastane. Waterproof 8000 mm. Breathable 800 mvp. Colour: grey/black/red.

Advantages: Warm, very soft, comfortable and aesthetic. Very light wear. The innovative material of this garment gives a very good elasticity and a great comfort.

#### **VANCOUVER**





SINGER®





SOFT SHELL

#### Soft outdoor windbreaker vest in Softshell fabric: 94% polyester, 6% elastane. Front zip. Straight collar. Polar inside. 3 outside pockets. Reflective piping. Inside tightening waist with drawstring and stoppers. Waterproof 8000 mm. Breathable 800 mvp. Colour: black.

Advantages: Very light wear. Outdoor profile. The innovative material of this garment provides a very good elasticity and a high sensation of comfort. Water-repellent and breathable.













Soft outdoor windbreaker vest in Softshell fabric with micro fleece lining. 96% polyester, 4% elastane. Front waterproof zip closing. Straight collar. 3 outer pockets. Adjustable wrists. Inside tightening waist with elastic drawstring and stoppers. Colour: black. Red contrasts.

Advantages: Very light wear. Outdoor profile. The innovative material of this garment provides a very good elasticity and a high sensation of comfort

#### **VERNON**





S, M, L, XL, 2XL, 3XL









POLNOIR Colour: black **POLNOR** Colour: grey





10x1 S, M, L, XL, 2XL, 3XL

SINGER®





Polar fleece jacket in unlined polyester (270-280 gsm).

Zipper closing. Pockets. Inside bottom tightening with drawcords and stoppers. Elasticated wrists.

POLKANO Colour: black POLKA Colour: blue









#### **PULGRIS**

10x1 S, M, L, XL, 2XL

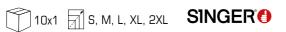
SINGER®





100% acrylic. High collar with zipper. Colour: Navy blue.

#### **PULBLE**





100% acrylic. High collar with zipper. Shoulder and elbow patches. Chest pocket and pen holder. Colour: Navy blue.

#### PUL050BM





#### Work jacket

Material: cotton/polyester (65/35%). 300 gms. Triple overstitching.

Front zipper under flap with red contrasted self grip fastening band. 2 press studs.

Retro-reflective piping in the front, in the back and on the sleeves. Numerous pockets, badge-holder. On the bottom, two large hand-rest pockets with gusset. Multi-purpose keyholder. 1 large convenient pocket in the back.

Adjustable wrists with textile strip and press-stud. Grey and red overstitching. Waist adjustement with textile strip and press-stud. 1 inner pocket with zipper. 1 inner pocket with loops for headset. Comfort pleats in the back.

Colour: mixed grey/black/red



#### **VEGAS**





10x1 M, L, XL, 2XL, 3XL

SINGER®









PREMIUM

#### **Work trousers**

Material: cotton/polyester (65/35%).

300 gms. Triple overstitching.

Elasticated waist on each side. Loops for belt.

Fly with zipper and button. Numerous and various pockets in the front and in the back. Easy access free outside compartment pockets for small tools or bolts/nails storage in reinforced fabric (they can be inserted in the main pockets upon end user choice).

Retro-reflective piping. Hammer loop. Knee pad pockets in reinforced fabric.

Triple overstitching on legs.

PORTO Colour: mixed grey/black/red.

PORTAC Colour: black.



10x1 S, M, L, XL, 2XL, 3XL **SINGER** 







Soft and comfortable polo-shirt. Short sleeves. 100% polyester Cooldry®. Bird eye knitting, 150 gsm. Reinforced sweat tape at collar. Hemmed sleeves and bottom. Exclusive design Singer® Safety.

### **PRATA**





S, M, L, XL, 2XL



### Work garments - X Pro Collection



**VILNIUS** 

245 gsm.

Colour: grey anthracite/black/orange

**VILNAM** Colour: blue/black

SINGER®



### **Work trousers**

Knee pad pockets. Elasticated waist. Many functional pockets including one for mobile phone. Material: 65% polyester/35% cotton. 245 gsm.

PRAGUE Colour: grey anthracite/black/orange

PRAGMA Colour: blue/black







VILBLA Colour: white/grey/black.



10x1 s, M, L, XL, 2XL, 3XL **SINGER** 







PRAGBLA Colour: white/grey/black PRAGBE Colour beige/brown/orange





### Work garments - X Pro Collection

Polyester/cotton 65/35%. 245 gsm. Many functional pockets. 1 pen compartment. Pockets for screws/bolts. 1 rule pocket. Colour: black/grey, anthracite/orange.



Elasticated waist. One zipped wallet pocket. Adjustable bottom legs. Multi-purpose keyholder.

#### **CAIRO** Two zips work coverall





10x1 S, M, L, XL, 2XL, 3XL **SINGER** 



One zip work coverall









Knee pads pockets. Elasticated waist. One zip closure pocket. Adjustable shoulder straps.

Reinforced stiches. Reflective piping.

#### **SPLIT** Work bib pant



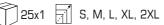
10x1 S, M, L, SINGER\*

Soft and comfortable t-shirt. Crew neck. Short raglan sleeves. 100% polyester Cooldry®. Bird eye knitting, 150 gsm. Reinforced sweat tape at collar. Elasticated double layer ribbed collar. Hemmed sleeves and bottom. Exclusive Singer® Safety design. Two-coloured.



#### **SURO**







Many functional pockets including two zipped pockets and one zipped pocket for wallet. Two wide easy access back pockets. Multi-purpose keyholder. Material: 65% polyester/ 35% cotton. 245 gsm.

Colour: grey anthracite/black.

### **GOIAS Work vest**



10x1 M, L, XL, 2XL, 3XL **SINGER** 



Elasticated waist. Many functional pockets including one for mobile phone. Material: 65% polyester/ 35% cotton.

245 gsm.

Colour: grey anthracite/black.

#### **BORA Work short**



10x1 M, L, XL, 2XL, 3XL **SINGER** 



Fire retardant protective coverall. Fabric in Pyrovatex 310 gsm. 99% cotton, 1% antistatic material (carbon). Font zipper with hook-and-loop fastened flap. Outer chest pockets with hook-and-loop fastened flap. Side slant pockets. Ruler pocket on right leg. Ajustable wrists with hook-and-loops flap. Elasticated waist in the back. Stand-up collar. Colour: Blue. Orange bartacks.

S, M, L, XL, 2XL, 3XL

#### **COSTA**









A2 B1 C1 E1)



SINGER® ENISO11611 ENISO11612 EN 1149-5



Fire retardant protective hood. Fabric in Pyrovatex 310 gsm. 99% cotton, 1% antistatic material (carbon). Safety hood covering shoulders.

Adjustement with hook-and-loop flap.

Original system of hook-and-loops straps on top of the hood for convenient adjustement on welding hood. Colour: blue.

#### **PYROCAG**













40 cm fire retardant protective sleeves. Fabric in Pyrovatex 310 gsm. 99% cotton, 1% antistatic material (carbon). Elastic under hem at wrist. Adjustement at elbow with hook-and-loops flap. Colour: blue.

#### **PYROMTE**









ENISO11611 ENISO11612 EN 1149-5 A2 B1 C1 E1)



Work jacket 100% cotton, 300 gsm. Front button fastening with flap. External chest pockets. Mobile phone pocket. 1 pen holder. External pockets at the waist. 2 side pockets. Inside pockets. Cuffs with button.

VAR Colour: ink blue/black color VARY Colour: grey/black

10x1 S, M, L, XL, 2XL, 3XL

SINGER®

Work trousers 100% cotton, 300 gsm. Closure at the waist with button. Fly with plastic zipper. Belt loops. 2 slanted pockets at the waist. 1 pocket on the left leg, with flap and self-grip closure. 2 back pockets.

PAU Colour: ink blue/black color

PARY Colour: grey/black



SINGER®







Work bib pant

100% cotton. 300 gsm.Many functional pockets including one zip closure pocket. One ruler pocket. One check pocket with zip. Adjustable shoulder straps with plastic buckle. Side opening with buttons. Fly with zipper. Reinforced stitches. Colour: grey/black

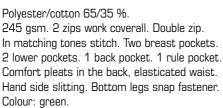
### **SARY**



10x1 S, M, L, XL, 2XL, 3XL

SINGER®





#### **COMBIAGRI**





One zip coverall.

Front plastic zipper closure.

2 chest pockets.

2 lower pockets.

1 back pocket.

1 ruler pocket.

Elastic tightening in the back.

Hand side slitting.

Colour: ink blue/black.

### **CAEN**





### Work garments - Classic line



Work coat

100% twill cotton. White: 265 gsm. Blue: 300 gsm. Preshrunk fabric. Studs. 2 lower pockets.1 breast pocket.

1 inside pocket. Front studs.

LABBLUE Colour: navy blue

LAB Colour: white

10x1 XS, S, M, L, XL, 2XL, 3XL **SINGER** 





Rubber anti-slip black knee pad. Fasten with strap and buckle.

Height: 240 mm. Width: 147 mm.

#### **KP2C240**



200x1 EN14404



Rubber anti-slip black knee pad. Fasten with strap and buckle.

#### **CAOGEN**





Adjustable textile belt. Robust and practical. Length 140 cm. Adjustable. Width 4 cm. Belt in 100% polyester. Strong brushed steel buckle.

#### **BELT**



40x1





100 % cotton denim 13 oz. Straight cut. Belt loops.

Metal zip under flap.

5 classic pockets, whose one ticket pocket. Display carton of 10 pieces per size.

### **JEANS**







### Welding garments - Classic line



**SOUDAVEP** Back in fire retardant fabric



5x1 📶 M, L, XL



EN ISO11611 Class 1/2 A1





**SOUDAV** All split











Split leather bolero. Long sleeves. Fastening with press-studs (under leather flap). Adjustable on the bolero apron with press studs. Aramid yarn.

#### **APRON**

Bolero apron in split leather 60 x 60 cm, fastening with straps and buckle.

Adjustable on the bolero with press studs. Aramid yarn.

**SOUDAB** Bolero SOUDAT6060 Apron



EN ISO11611 Class 1/2 A1







with adjustable belt. 90 x 70 cm. Aramid yarn.

#### SOUDAT9070







Welding trousers in split cow leather. Opening on each side Fastening with self grip fastening. Inside integrated adjustable

leather belt. One pocket on the left side of the leg. Aramid yarn.



at waist.





EN ISO11611





Arm Sleeves. Cow split leather sleeve. Elasticated on both sides. Useful length: 40 cm (+/- 2 cm). Aramid yarn.

#### **SOUDAM**









Hood. Split leather hood. Front opening with 3 press studs under leather flap. Large leather flap covering the shoulders. Aramid yarn. Class 1/2 A1.

#### **SOUDAC**





EN ISO11611





#### **SOUDAG**









### Sleeves - Classic line

40 cm fire retardant protective sleeves.

Fabric in Pyrovatex 310 gsm. 99% cotton, 1% antistatic material (carbon). Elastic under hem at wrist.

Adjustement at elbow with hook-and-loops flap.

Colour: blue.

Sold by pair.

#### **PYROMTE**











Cotton fabric sleeve. Length 40 cm.

Elastic band under hem at wrist.

Elbow adjustement with hook-and-loops straps.

Colour: blue. Sold by pair.

#### **MANBLEU**









Cotton terry cloth sleeve. Length 35 cm (40 cm with the wrist) Elastic band at wrist. Elastic under hem at elbow. Sold by pair.

#### **BCLMTE35**









Cotton fabric sleeve. Length 40 cm. Elastic band at wrist. Elastic under hem at elbow. Natural colour. No permanent flame retardant cotton treated fabric (no washable).

Sold by pair.

#### COTMTE40







Cow split leather sleeve. Elasticated on both sides. Useful length: 40 cm (+/- 2 cm).

Sold by pair.

#### **SOUDAM**











Seamless machine knitted from high density polyethylene yarn (HDPE) blended with polyamide, yarn fibreglass and spandex. Elastic at elbow and cuff. Thumb opening. Ambidextrous style. Length: 45 cm.

Sold by piece.

#### PHDMTE45





Kevlar® (\*) knitted, protection of the forearm. Elastic wrist. Ambidextrous. Length: 50 cm. Sold by piece.

#### **TKVMTE50PL**









Kevlar® (\*) knitted protective sleeve, double layer. Protection of the forearm and palm of the hand. Ambidextrous. Thumb opening. Length: 46 cm. Sold by piece.

#### **TKVMTE46**











Polyurethane/P.VC green sleeves. Length: 53 cm. Self grip fastening at elbow. Elasticated wrist. Welded seams

Sold by pair.

MTEPUB Colour: white MTEPUV Colour: green









PVC sleeve with polyester liner. Length 40 cm. Elastic band at wrist, elastic under hem at elbow. Colour: green.

Sold by pair.

#### **PVCMTEVER**















### Rainwear - The comfort range



## Polyurethane/PVC.

Polyurethane/PVC set (jackets + trousers) on polyester liner. Jacket with attached hood in collar. Front zip under studded flap.

2 front pockets with flap. Ventilated back. Drawcords at waist.

Trousers with fly-front with snap stud. Drawcords at waist + elastic tightening. Bottom legs adjustment with snap studs.

Hand side slitting. Taped seams. VPLRAINY Colour: navy blue VPLWINDY Colour: green

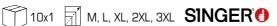
VPLOCEAN Colour: yellow











### **Comfort coveralls**

Polyurethane/P.V.C on polyester liner.

Double watertight zip, under flap with self-grip closing.

Right zip until bottom of the feet. Bottom legs adjustment with snaps.

Fixed concealed 3 pieces hood rolled inside collar, drawstring, and self-grip closing.

Elastic cuffs windbreaker under the sleeves.

Taped seams. Colour: green.

#### **COMBIPUV**





#### **Soft rainsuits** Polyester/PVC.

Soft polyester/PVC set (jacket + trousers). Jacket with attached hood and drawcords. Front zipper. Pockets. Ventilated back.

Elasticated waist trousers. Hand side slitting.

Taped seams.

VPLARMORM Colour: navy blue VPLARMORV Colour: green VPLARMORJ Colour: yellow









10x1 M, L, XL, 2XL













**Soft coverall** 

Double zipper closure.

Attached hood rolled in collar.

VPLOSLOM Colour: navy blue **VPLOSLOV** Colour: green

Polyester/PVC.

2 chest pockets,

2 waist pockets. Taped seams.







Front zipper closure under studded flap. Attached hood with drawcords, rolled into collar.

2 outer waist pockets.

Ventilated back.

Ventilation under arms with eyelets. Wrists adjustment with snap studs.

Taped seams.

VPLMANV Colour: green VPLMANJ Colour: yellow





10x1 M, L, XL, 2XL, 3XL

SINGER®



### Aprons - Classic line



VERY STRONG



Bib apron. Polyurethane/PVC. Dimensions 120 x 90 cm.

TAB1290PUB Colour: white. TAB1290PUV Colour: green









**TABCHB1070** 

Bib apron.

Cotton fabric.

Colour: blue.



SINGER®

Bib apron.

PVC/polyester/P. V.C.

TABPB1070 Colour: white TABPV1070 Colour: green







References	Colours	Dimensions
TABPV 1070	Green	100 x 70 cm
TABPV 1290	Green	120 x 90 cm
TABPB 1070	White	100 x 70 cm
TABPB 1290	White	120 x 90 cm







# One parka, 4 solutions!



POCKET FOR MOBILE PHONE







Insulation with detachable vest + detachable long sleeves.



POCKET FOR MOBILE PHONE







Bad weather high visibility garment set made up of two different pieces. With retro-reflective tape.

Inside and outside pockets. Concealed hood rolled inside collar. Front zip fastening under studded flap.

Outshell: polyester Oxford 300 D with polyurethane coating. Polyester lining. Features a zip access for print.

Insulation with detachable vest + detachable long sleeves. Ousthell polyester Oxford 300 D with polyurethane coating. Inside: Polar fleece 280 gsm.

PIANA: Colour: navy blue/yellow PIANO: Colour: navy blue/orange













### Parkas







exclusive



Insulation with detachable vest + detachable long sleeves









4x1 high visibility garment. Garment set made up of two different pieces. With retro-reflective tape. Parka and bodywarmer with zip access for print.

Inside and outside pockets. Concealed hood rolled inside collar. Front zip under flap with hook-n-loop fasterners. Outshell: polyester Oxford 300 D with polyurethane (PU) coating. Polyester lining.

PARINA: Colour: navy blue/yellow PARINO: Colour: navy blue/orange Insulation with high-visibility detachable vest (with detachable coated long sleeves).

With inner and outer pockets. Ousthell polyester Oxford 300 D with polyurethane coating.

Inside: Polar fleece 280 gsm.















Bad weather high visibility garment with retro-reflective tape. Inside and outside pockets.

Concealed hood rolled inside collar. Knitted storm cuffs.

Two ways front zip fastening under studded flap. Outshell: polyester Oxford 300 D with polyurethane coating. Lining and padding: polyester. Features a zip access for print.

PALERME: Colour: navy blue/yellow PALOMA: Colour: navy blue/orange PALOVER: Colour: dark green/yellow













Two-tone foul weather high visibility parka.

Outshell: polyester Oxford 300 D with polyurethane coating. Polyester lining. Polyester padding. With retro-reflective tape. Inside and outside pockets. Concealed hood rolled inside collar. Front zipper under flap with hook-n-loop fasteners. Features a zip access for print.

PARDA: Colour: navy blue/yellow PARDO: Colour: navy blue/orange











### Rainwear

Bad weather high visibility garment set made up of two different pieces. With retro-reflective tape.

#### Rain coat:

Pockets. Concealed hood rolled inside collar. Front zip fastening under studded flap. Outshell: polyester Oxford 300 D with polyurethane coating. Polyester lining.

#### Rain trousers:

Ousthell polyester Oxford 300 D with polyurethane coating. Elasticated waist. Fly.

VILA: Colour: navy blue/yellow VILO : Colour: navy blue/orange





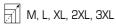






Foul weather high visibility garment. With retro-reflective tape. Suspender pants. Ousthell polyester Oxford 300 D with polyurethane coating. Elasticated waist. Front fly with press-stud.

PIVA: Colour: navy blue/yellow **PIVO**: Colour: navy blue/orange







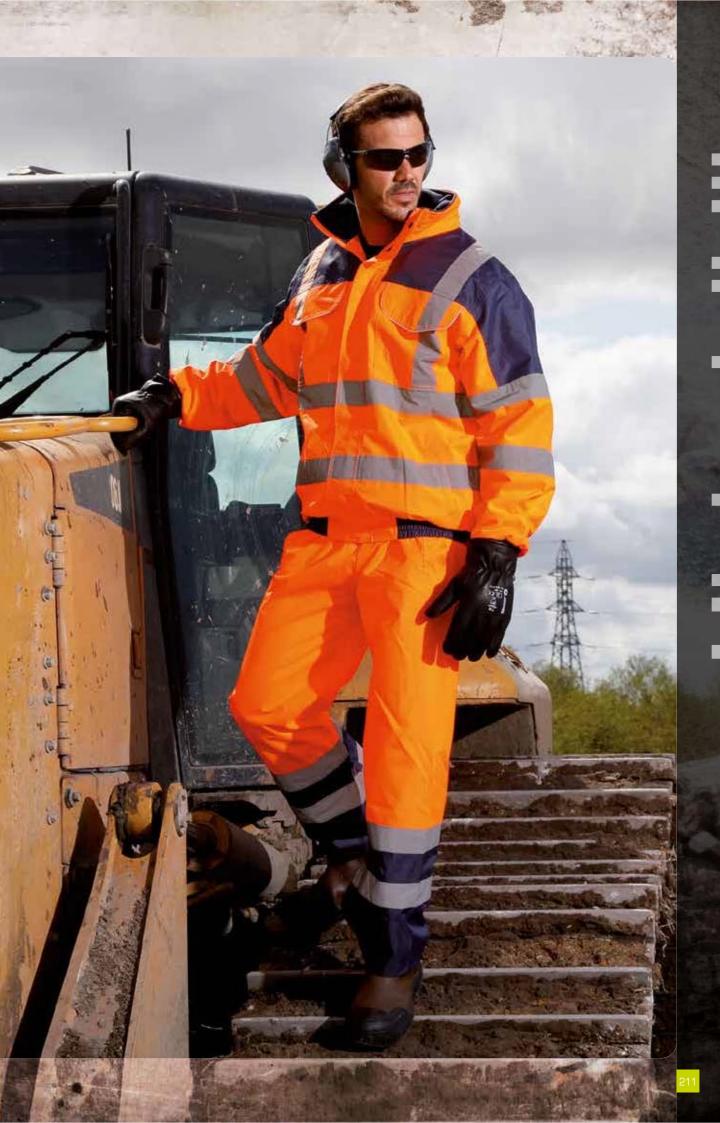












# One jacket, 2 solutions!





Detachable PU coated sleeves





High visibility jacket with retro-reflective tapes. Inside and outside pockets.

Detachable PU coated sleeves. Front zipper fastening.

Outshell: polyester Oxford 300D with polyurethane (PU) coating. Lining Polyester fleece polar 280 gsm.

VIENA: Colour: yellow VIENO : Colour: orange













Detachable sleeves. Knitted wrists. 211 petachable



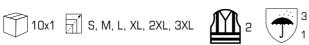




Foul weather high visibility jacket/bodywarmer with retro-reflective tapes. Inside and outside pockets. Detachable sleeves. Knitted wrists. Front zipper. Outshell: polyester Oxford 300 D with polyurethane coating. 100% polyester Polar fleece lining, 280 gsm. Features a zip access for print.

**VERONE** : Colour: yellow **VERONO** : Colour: orange







SINGER®







### **POLAR**

High visibility two-tone lined jacket with retro-reflective tapes.

Knitted storm cuffs. Front zip fastening. Elasticated waist. 2 slant pockets with zipper. Outshell: soft polyester Polar fleece. 300 gsm (+/- 10g). Lining: polyester. Grey tapes.

**POLGA**: Colour: yellow **POLGO**: Colour: orange





SINGER®

# Fluo outside Polar fleece inside



High visibility jacket. Retro-reflective tapes. Front zipper. Outer pockets. Rest pockets. 1 inner pocket. Features a zip access for print. Outshell in 100% polyester Oxford 300 D PU coated. Polar fleece lining, 260 gsm.

GANA: Colour: yellow GANO : Colour: orange









High visibility polyester vest. Zip front fasterning. Two front hip pockets with gusset and self-grip fastening flaps. 2 hand rest pockets. Mobile phone & pen pockets. Clear plastic badge holder. Black plastic D clip ring. Grey retro-reflective tapes.

GARA: Colour: yellow GARO : Colour: orange



50x1 🗐 S, M, L, XL, 2XL 🔟 2

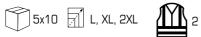


SINGER®



High visibility polyester waistcoat. Front self-grip fastening. Grey retro-reflective tapes.

VPLGILJ: Colour: yellow VPLGILO : Colour: orange









## Work garments



### **WORK JACKET**

Front zipper under flap.

4 outer pockets + 1 pen holder.

2 inner pockets.

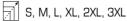
Adjustable wrists with self-grip band.

Retro-reflective tapes.

Material: 60% cotton/40% polyester.

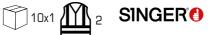
280 gsm.

VITA: Colour: yellow/blue VITO : Colour: orange/blue











## **WORK TROUSERS**

Elasticated waist on each side. Loops for belt.

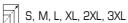
Fly with zipper and button. Numerous and various pockets in the front and in the back.

Knee pads pockets.

Retro-reflective tapes. Material: 60% cotton/ 40% polyester.

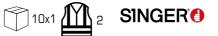
280 gsm.

**PILA**: Colour: yellow/blue **PILO**: Colour: orange/blue









## Polo-Shirts



High visibility polo-shirt.

100% polyester bird eyes fabric with wicking finishing (150 gsm).

2 horizontal stretchables retro-reflective tapes around body. 3 buttons closing. Long sleeves.

**PUNTA**: Colour: yellow **PUNTO**: Colour: orange







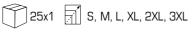




High visibility polo-shirt. 100% polyester bird eyes fabric with wicking finishing (150 gsm). 2 horizontal retro-reflective tapes around body. 3 buttons closing. Short sleeves.

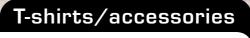
PAULA: Colour: yellow PAULO : Colour: orange











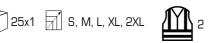




SUZE: Colour: yellow **SUZO**: Colour: orange







SINGER®

High visibility polyester armband PU coated. Heigth 90 mm. 3M™ retro-reflective tape in 30 mm height. Self-grip fastening. Not a PPE.

**BRASSJ**: Colour: yellow **BRASSO**: Colour: orange





EN13356



SINGER®

Warning triangle, strong and resistant with built-in heavy duty stabilising metal base. Supplied in plastic carrying case. Conformity E9-27R-03-4047.

TRSGN1





Red and white roadsign cone in polyethylene. 50 cm high.

**SGNCONE** 



10x1



«Danger sol glissant.» (text in french language) **BALPL1** 



10x1





## Harnesses PREMIUM

### In the back, the harness features tools holdings







Shoulder straps: fully padded shoulder straps with comfortable knitted mesh pads for better shock absorption and air

circulation.

confined space.

Front attachment: very ergonomically placed sternal D Ring, to be used as front attachment point for fall protection when using a guided type fall arrester while climbing or entering a

Ventral D-ring: provided to be used for rope access, rescue and many other applications making the harness multipurpose.

Ventral D-ring: provided to be used for rope access, rescue and many other applications making the harness multipurpose. ID plate: Dorsal webbing. Holding cross plate maintains the D-ring in place even after a fall.

Automatic buckles: extremely easy to use with single hand adjustment.

Made from top grade corrosion resistant steel, these buckles provide a comfortable and snug fit.

Lanyards keepers:
specially designed keepers on both sides
for safely attaching the free connector end of
twin legged lanyards PN351 (be careful
these lanyards keepers must not be used
as an attachment point
for the fall protection system).

Combination buckles: with a unique pull-up grip, these buckles are very easy to use, can be tightened/loosened with single hand. They provide very comfortable adjustment, keeping the harness snug fit to the body.

Combination buckles: with a unique pull-up grip, these buckles are very easy to use, can be tightened/ loosened with single hand.

They provide very comfortable adjustment, keeping the harness snug fit to the body.

Thigh straps:
the distinctively placed
fully padded straps with
automatic buckles
for easy adjustement.
The knitted mesh net used in
the pads gives better shock
absorption and maintains
proper air circulation.

HARRICANA 3 EN361, EN358, EN813





Dorsal webbing holding cross plate maintains the D-ring in place even after a fall



Unique aesthetic stitch pattern for enhanced stitching strength with smart styling



Automatic buckles

Fully padded shoulder straps with comfortable knitted mesh pads for better shock absorption and air circulation.

1 front attachment: 2 ideally positioned textile loops to be used as front attachment point for fall protection.

1 back attachment point: dorsal webbing holding cross plate maintains the D-ring in place even after a fall.

Automatic buckles: extremely easy to use with single hand adjustment. Made from top grade corrosion resistant steel, these buckles provide a comfortable and snug fit.

Elastic loops: specially designed to retain the excess strap while adjustment.

Triangle ring for lanyards keepers: specially designed keepers on both sides for safely attaching the free connector end of twin legged lanyards PN351. (be careful these lanyards keepers must not be used as an attachment point for the fall protection system).

Thigh straps: the distinctively placed fully padded straps with automatic buckles for easy adjustement.

The knitted mesh net used in the pads gives better shock absorption and maintains proper air circulation.

#### **HARRICANA 1**

EN361







## Harnesses



1 dorsal and one sternal (chest) D-ring for fall arrest. 1 ventral D-Ring for rope access work. 2 lateral D-Rings for work positioning.

Full body harness with polyester strap of 45 mm. Soft padding on shoulder, waist & leg straps. Specially designed for comfort and hard access environments.

#### **PN56**

EN361, EN358, EN813





### $\boldsymbol{2}$ attachments: one dorsal (D-ring) on chest (textile loops).

Full body harness with polyester strap of  $45~\mathrm{mm}$ . Combinated with the waist belt PNO1. Adjustable shoulder and thigh straps.

#### **PN42**

EN361, 358



## Harnesses and work positionning belt



#### 2 attachments: dorsal and chest (by D ring).

Full body harness with polyester strap of 45 mm. Adjustable shoulder and thigh straps.

With sit strap.

#### **PN24**

EN361



SINGER®





**PN12** 

EN361

With sit strap.

Adjustable thigh straps.





Work positioning belt with pad. Two side D-rings of forged alloy steel.

Wider back comfort pad. Tool holding webbing loops.

Rings for tools holders, bolt bags etc.

For use together with the work positioning lanyards PN241 or PN242.

#### PN01

EN358



SINGER®



2 attachments: one dorsal D-ring, one chest textile loops.

Full body harness with polyester strap of 45 mm.

Work positionning belt with comfortable leg straps and back pad. Two lateral metallic D-ring wich can be used for work positionning. Front waist attachment element (metallic D-ring) to be used for rope access.

#### **PN51**

EN358, EN813



SINGER\*\*





Harness and set

**1 dorsal attachment D-ring**. Full body harness with polyester strap of 45 mm. Adjustable thigh straps. **With sit strap**.

### **PN11**

EN361









**PN201B** : Length: 1 m. **PN201** : Length: 1.50 m.

EN354





Braided polyamide lanyard. Thimbled loops on both ends. 12 mm diameter. Length: 1,50 m.



**PN281** 

EN354





Polyamide braided lanyard. PN121 hook at one end. PN131 at the other end.

**PN289B** : Length: 1 m. **PN289** : Length: 1,5 m

EN354





Thimbled loops with hook opening 55 mm. Lanyard in polyamide. Made up of 12 mm diameter, 3 strand polyamide rope. The splices are protected with a sleeve. One end with thimbled loop, other end with hook PN131. Length: 1,50 m.

**PN206** 

EN354







Double lanyard (rope) in polyamide, with energy absorber and karabiner (PN300+PN112) and PN131 hook at each end. Length: 1,50 m.



EN355





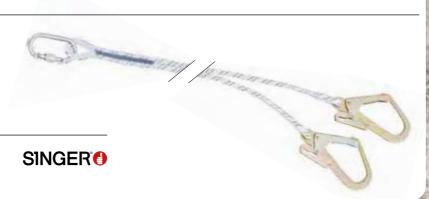
2 braided polyamide lanyard (rope) Length: 1.50 m.

PN112 karabiner at one end. PN131 hooks at other ends.



EN354







## Lanyards, fall arresters

#### Work positioning lanyard.

Adjustable length

(maximum length 2.00 meters, with karabiners). Ring type adjuster of forged alloy steel. Easy to connect steel karabiners at both ends.

Made of 14 mm diameter polyamide.

3 strand rope. Equiped with 2 karabiners PN112.

#### **PN241**

EN358





#### Work positioning lanyard.

Automatic grip adjuster for length adjustment. 14 mm diameter . 3 strand polyamide rope. Maximum length: 2 meters.

Equiped with 2 karabiners PN112.

#### **PN242**

EN358





**AUTOMATIC GRIP ADJUSTER** 



#### Steel fall arrester.

Clasp on to flexible anchorage line of 14 mm. With screw locking steel karabiner.

#### PN2000A

EN353-2





#### Fall arrest.

Claps on to the 12 mm braided lanyard PN910K, PN920K or on the 14 mm spliced rope PN910

With anti-panic system.

To be attached by screw alloy steel karabiner.

#### **PN2007AP**

EN353-2



SINGER\*\*





#### Anchorage line.

14 mm diameter spliced polyamide rope. One side thimble loop. Other side end stop knot. Length: 10 m

#### **PN910**

EN353-2



#### Anchorage line.

14 mm diameter spliced polyamide rope. One side thimble loop. Other side end stop knot. Length: 20 m

#### **PN920**

EN353-2





#### Anchorage line.

Braided polyester lanyard (rope).

Diameter: 12 mm. One side thimble loop. Other side end stop knot.

## Length: 10 m

**PN910K** EN353-2





#### Anchorage line.

Braided polyester lanyard (rope).

Diameter: 12 mm. One side thimble loop. Other side end stop knot. Length: 20 m

#### PN920K

EN353-2







## Lanyards, energy absorbers retractable fall arrester

Polyester webbing lanyard with energy absorber PN300. Loop stitched at the ends. Width: 44 mm. Length: 1.50 m.

#### **PN321**

EN355







Energy absorber made up of 44 mm wide polyester webbing and shrink wrapped.

#### PN300

EN355







Lanyard in polyamide (made up of 12 mm diameter, 3 strand polyamide rope) with energy absorber. The splices are protected with a sleeve. One end with thimbled loop, other end with stitched loop. Length: 1.50 m.

#### PN301

EN355







Retractable webbing of 50 mm width. Having a protective casing. Incorporating an energy absorber for shock absorption. Maximum length: 2,25 m. Supplied with 2 steel karabiners.

#### PN2002

EN360







## Connectors



Alloy steel screw locking karabiner. Self closing and manual locking type. Opening 16 mm.

**PN112** EN362





Aluminium screw locking karabiner. Self closing and manual locking type. Opening 21 mm.

**PN116** EN362

]20x10



Aluminium quarter turn locking karabiner. Opening 20 mm.

**PN117** EN362





Safety hook. Galvanized steel Opening PN131: 55 mm.

PN131 EN362







Safety hook. Aluminium Opening PN136: 60 mm.

SINGER®

PN136 EN362



SINGER®



Anchorage hook in stainless steel. Opening: 140 mm.

**PN141** EN362



## Anchorage line/Anchorage sling

Temporary horizontal anchorage life line made up of 30 mm polyester webbing. Equipped with ratchet tensioner. Available length: 20 meters. Both the ends are provided with auto locking steel karabiners. The whole system is supplied in a bag. Can be used by two peoples simultaneously.

#### **PN3000**

EN795 (class B)



SINGER®

Anchorage sling in polyester textile webbing.

**PN807**: Length: 0.60 m

EN795 (class B)

PN807D : Length: 2.00 m

EN795 (class B)



SINGER®

#### **BAGS**

Carriage bag in nylon + polypropylene. With badge holder. (45 x 19 x 19 cm).

#### **PN903**



50x1

Shoulder bag with badge holder and mobile phone pocket.

#### **VERTISAC1**





Carriage bag.

#### **SACKIT**



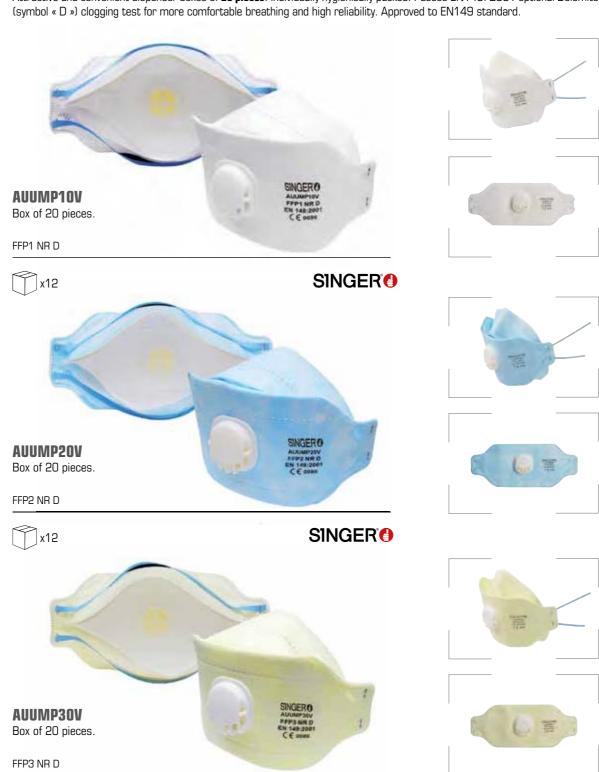




## Respiratory protection

## FOLDABLE PARTICULATE RESPIRATORS HORIZONTAL FOLD FLAT - 3 PANELS DESIGN

3 panels design. Large volume and exhalation valve improving the breathing of the user and decreasing the fatigue at work. Foldable design and easy carry/storage. Comfort and safety improved thanks to the ideal concept of this equipment. Latex free double elastic band. Adjustable invisible nosepiece to minimize leakage but maximize comfort. Smooth lining in polypropylene. Attractive and convenient dispenser boxes of **20 pieces**. Individually hygienically packed. Passes EN149: 2001 optional Dolomite (symbol « D ») clogging test for more comfortable breathing and high reliability. Approved to EN149 standard.



SINGER®

12 x12

## CLASSIC FOLDABLE PARTICULATE RESPIRATORS

#### Horizontal fold-flat

Latex free; nosepiece without metal, no metal used (avoid skin irritations). Continuous loop headstrap design allows to hang the mask around the neck when not in use. The unique shape of the respirators, pre-shaped, prevent from using metal nosepiece. Optional Dolomite («D» symbol) clogging test for more comfortable breathing. Passes EN 149 Norm.



#### AUUMP100SL

Box of 20 pieces.

FFP1 NR D



SINGER®



#### **AUUMP200VSL**

With exhalation valve. Make breathing easier. Box of 20 pieces.





SINGER®

## AUUMP300VSL

With exhalation valve. Make breathing easier. Box of 20 pieces.



FFP3 NR D



SINGER®

## CLASSIC FOLDABLE PARTICULATE RESPIRATORS

#### Vertical fold-flat

Patented headstrap buckle to adjust length of headstrap for various facial sizes. Cool latex-free textile braided headstrap for comfortable wearing. No staple used. Avoid contact between skin and metal. Continuous loop design allows to hang the mask around the neck when not in use. P.P. inner/outer layers provide smooth lining and a comfortable feel. Foldable design and easy carry/storage. Hygienic individual packaging. Boxes of **20 pieces**. EN149:2001 standard.



#### **AUUMP31**

FFP1 NR



#### **AUUMP31V**

With exhalation valve. Make breathing easier. Box of 20 pieces.

FFP1 NR





SINGER®

#### **AUUMP32V**

With exhalation valve. Make breathing easier. Box of 20 pieces.

FFP2 NR





SINGER (1)

#### **AUUMP33V**

With exhalation valve. Make breathing easier. Box of 20 pieces.

FFP3 NR





SINGER (1)

## Respiratory protection

### COMFORT PARTICULATE RESPIRATORS

Passes EN149:2001 optional Dolomite (D) clogging test for more comfortable breathing. Patented headstrap buckle to adjust length of headstrap for various facial sizes. No metal used. Avoid contact between skin and metal and is suitable for those environments where metal is not allowed. Cool latex-free textile braided headstrap for comfortable wearing. Continuous loop headstrap design allows to hang the mask around the neck when not in use. Polypropylene (P.P.) inner layer provides the most intimate touch to your face. Pre-shaped nose cushion and soft closed-cell nose foam ensures a custom shape that increases worker comfort and acceptance. Embossed fringe seal avoids fluffy open layer around the edges. Contour design ensures the compatibility of spectacles/goggles and reduces fogging.



#### AUUM21

Box of 20 pieces.

FFP1 NR D



SINGER®



#### AUUM21V

Same as AUUM21 but with exhalation valve. Box of 10 pieces.

FFP1 NR D



SINGER®



#### **AUUM22V**

Exhalation valve. Box of 10 pieces.

FFP2 NR D



SINGER®



#### AUUM23V

Exhalation valve. Box of 10 pieces.

FFP3 NR D



# CLASSIC PARTICULATE RESPIRATORS

Face-piece respirators. Filters solid and liquid aerosols. Moulded series. Approved to EN149:2001 standard.

Passes EN149:2001 optional Dolomite (D) clogging test for more comfortable breathing. Polypropylene outer layer provides smooth lining and avoids loose fibers. Embossed fringe seal avoids fluffy open layer around the edges. Latex-free synthetic rubber double headstrap. Contour design ensures the compatibility of spectacles/goggles and reduces fogging. Soft nose foam and adjustable nosepiece ensures custom shape and increases worker comfort and acceptance.



#### **AUUM10VSL**

Exhalation valve. Box of 10 pieces.

FFP1 NR D







#### **AUUM20VSL**

Exhalation valve. Box of 10 pieces.

FFP2 NR D



SINGER\*



#### **AUUM10SL**

Box of 20 pieces.

FFP1 NR D







#### AUUM20SL

Box of 20 pieces.

FFP2 NR D



SINGER®



#### **AUUM30VSL**

Exhalation valve. Adjustable buckles. Facial foam. Box of 5 pieces.

FFP3 NR D







FFP2 NR D



Metal free (avoid skin irritations). Continuous loop headstrap design allows to hang the mask around the neck when not in use. Box of 10 pieces.

FFP3 NR D





## Respiratory and skull protection

#### **AUUM3RB**

Non-woven surgical mask, 3 ply. Display box of 50 pieces.

EN14683 (Class I, type II)







#### **AUUMASQUE**

Hygienic non woven mask. Metal nosepiece. Elastic headband on ears. Box of 50 pieces.









#### **AUUCRTBLANC**

Non woven polypropylene bouffant cap with elastic. Polybag of 100 pieces.









#### **AUUCRTCLIP**

White non woven polypropylene clip round cap with elastic. White colour.

Polybag of 100 pieces.













LONG WRIST



#### **AUU5000**

Nitrile. AQL 1,5. Powder free. Not sterile. Rolled cuff. Ambidextrous. Length: 295 mm(\*). Thickness: 0,16 mm(\*). Display box of 100 gloves.









6/7(S), 7/8(M), 8/9(L), 9/10(XL) **SINGER** (





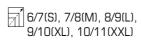
Nitrile. AQL 1,5. Powder free. Non sterile. Rolled cuff. Ambidextrous. Length: 245 mm(\*). Thickness: 0,12 mm(\*). Display box of 100 gloves.















Nitrile. AQL 1,5. Powder free. Non sterile. Rolled cuff. Ambidextrous. Length: 240 mm(\*). Thickness: 0,08 mm(\*). Display box of 100 gloves.









6/7(S), 7/8(M), 8/9(L), 9/10(XL)





#### **AUU1000**

Latex. AQL 1,5.

Lightly powdered. Non sterile. Rolled cuff. Ambidextrous. Length: 245 mm(\*). Thickness: 0.14 mm(\*). Display box of 100 gloves.







6/7(S), 7/8(M), 8/9(L), 9/10(XL)





#### **AUULAT**

Latex. AQL 1,5.

Lightly powdered. Non sterile. Rolled cuff. Ambidextrous. Length: 240 mm(\*). Thickness: 0,10 mm(\*). Display box of 100 gloves.







6/7(S), 7/8(M), 8/9(L), 9/10(XL)





#### **AUU2000**

Vinyl. AQL 2,5.

Lightly powdered. Non sterile. Rolled cuff. Ambidextrous. Thickness: 0,06 mm.[\*] Length: 240 mm.(\*) Display box of 100 gloves.











### **AUU3000**

#### Polyethylene.

Polybag of 100 gloves.













## Coveralls



#### **PLY500**

#### **Chemical protective coverall**

Non-woven SMS fabric. 55 gms. Waterproof seams with thermo-adhesive tape.

3 panels hood. Front zip fastening under large flap with self adhesive tape closure. Elasticated waist, wrist and ankle. Under individual polybag.

#### White colour















x50 L, XL, 2XL, 3XL



#### PLY600

#### **Chemical protective coverall**

MICROPOROUS polypropylene non woven fabric. 65 gms. Waterproof seams with thermo-adhesive tape.

3 panels hood.

Front zip fastening under flap with self adhesive tape closure. Elasticated waist, wrist and ankle. Under individual polybag.

#### White colour



























#### **PLYULTI**

**Chemical protective coverall** 

MICROPOROUS polypropylene non woven fabric. 65 gms. Serged seams.

3 panels hood.

Front zip fastening under large flap with self adhesive tape closure. Elasticated waist, wrist and ankle. Under individual polybag.

White colour

















## PLY56

**Chemical protective coverall** 

Non woven SMS fabric. 55 gms. Serged seams.

3 panels hood. Front zip fastening under large flap with self adhesive tape closure. Elasticated waist, wrist and ankle.

Under individual polybag.

White colour

























x50 📶 L, XL, 2XL, 3XL





#### **PLYCBC**

«Minor risk» coverall

Polypropylene non woven. 35 gsm.

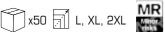
2 panels hood. Front zipper. Elasticated waist, wrist and ankle. Under individual polybag.

White colour













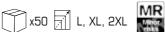


«Minor risk» coverall

Polypropylene non woven. 35 gsm.

2 panels hood. Front zipper. Elasticated waist, wrist and ankle. Under individual polybag.

Blue colour











## Sleeves, coats, aprons and shoe covers



#### **AUUTABLIER**

Clean polyethylene apron with bib, slightly embossed. 125 x 81 cm. Polybag of 100 pieces.









#### **AUUBLOUSE**

Clear polyethylene coat with hood and plastic press studs. Under individual polybag. Bundle of 100 pieces.











#### **PLYBLOUSE**

Non woven polypropylene lab coat. Plastic press studs fastening. 2 pockets. White colour. Under individual polybag.











#### AUUMTE

Clear polyethylene sleeves. 40 cm. Elastic at both ends. Polybag of 1000 pieces.









#### **AUUMTEBLE**

Blue polyethylene sleeves. 40 cm. Elastic at both ends. Polybag of 1000 pieces.









#### **AUUCHA**

Blue clean polyethylene shoe cover. Elasticated anckle. Polybag of 1000 pieces.





2x1 One size only





#### **AUUCHA2**

White non woven polypropylene shoe cover. Reinforced blue polyethylene sole. Elasticated ankle. Polybag of 50 pieces.









### General regulation and CE standards

#### The manufacturers and distributors of PPE (Personal Protective Equipment)

- Directive 89/686/EEC of 21 décember 1989 «on the approximation of the laws of the member States relating to personal protective equipment. (The directive is fixing the different categories of PPE, the procedure of certification and is stating the general requirements they must comply in order to be in free circulation on the european market; it refers to specific european standards, compulsory or not, for specifying in details the technical provisions they must meet).
- Directive 93/68/EEC of 22 july 1993 amending the directive 89/686/EEC of 21 décember 1989 regarding the new marking.
- Directive 93/95/CEE of 29 october 1993 amending the directive 89/686/EEC of 21 décember 1989.
- Directive 96/58/EC of 03 september 1996 amending the directive 89/686/EEC of 21 décember 1989.

#### **Employers**

They are subjected to the 89/656/CEE directive dated November 30th, 1989 « regarding the minimal prescriptions of safety and health for the needs by the workers at the work of personal protective equipments. The directive retails the obligation for employers to supply personal protective equipments when risks cannot be avoided by other ways » techniques of collective protection, or by measure, methods or procedures of work of organization.

This responsibility is reminded in the labour code article R.4321-4. The employer shall provide workers, when it is necessary, appropriate PPE, and in case of particularly dirty or unsanitary works, appropriate work clothes. It ensure their effective use.

#### The users of PPE

- Directive 89/656/CFF of 30 november 1989

The directive is specifying the obligation given to the employers to supply personal protective equipement when hazards can not be avoided by other means.

From the facturer of PPE to the end-user through the employer, each player is empowered.

#### STAGE PRIOR TO PROTECTION: ANALYSIS OF RISKS AND PREVENTION.

#### Defining the concept of a risk

The risk is linked with concepts of danger and probability.

The risk is a real and potential threat for the health and/or the safety of the person.

Method of risk management: collective protection and prevention.

#### Identifying the foreseeable risks

- If possible, eliminate the risks, but if that is not possible:
- Isolate the risks (or move people away) to decrease their foreseeable harmful effect
- Announce (with panels, warnings) and inform people of the risks

(knowing the risks is the best way of protecting oneself against them!)

- Plan staff training on the measures to be taken in the event of an emergency: first aid plan.

When all the means of collective protection and prevention have been exhausted, **personal protective equipment** (PPE) is to be used.

### General regulation and CE standards

## PPE DEFINITION. The european directive 89/686/CEE of the 21 December 1989 gives us the following definition:

A «PPE» is a Personal Protective Equipment that is to say «any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards».

#### They are 3 categories of PPE

#### PPE of «simple design» (for minor risks) (category 1)

The directive 89/686/CEE defines this category as following: where the designer assumes the user can himself assess the level of protection provided against the minimal risks concerned the effects of which, when they are gradual, can be safely identified by the user in good time».

This category shall cover exclusively PPE intended to protect the wearer against:

- mechanical action whose effects are superficial (gardening gloves, thimbles, etc.),
- cleaning materials of weak action and easily reversible effects (gloves affording protection against diluted detergent solutions, etc.),
- risks encountered in the handling of hot components which do not expose the user to a temperature exceeding 50°C or to dangerous impacts (gloves, aprons for professional use, etc.),
- atmospheric agents of a neither exceptional nor extreme nature (headgear, seasonal clothing, footwear, etc.),
- minor impacts and vibrations which do not affect vital areas of the body and whose effects cannot cause irreversible lesions (light antiscalping helmets, gloves, light footwear, etc.),
- sunlight (sunglasses).

#### PPE of «intermediate design» (category 2)

These are the PPE which don't belong neither to the category I nor to the category II.

The manufacturer prepares a technical file and undertakes an EC type examination to a notified body.

After getting the EC type examination certificate from the notified body, the manufacturer or his representative completes an EC declaration of conformity for intermediate **category**.

#### PPE of «complex design» (category 3).

The directive 89/686/CEE defines this category as following: «(...)intended to protect against mortal danger or against dangers that may seriously and irreversibly harm the health, the immediate effects of which the designer assumes the user cannot identify in sufficient time».

In addition of the technical file and the EC type examination, the «PPE» of this category are subject to the «EC» quality control system for the final product or the system for ensuring EC quality of production by means of monitoring.

After getting the EC type examination certificate from the notified body, the manufacturer or his representative completes an EC declaration of conformity for «complex design».

This category shall cover exclusively:

- Filtering respiratory devices for protection against solid and liquid aerosols or irritant, dangerous, toxic or radiotoxic gases,
- Respiratory protection devices providing full insulation from the atmosphere, including those for use in diving,
- PPE providing only limited protection against chemical attack or against ionizing radiation,
- Emergency equipment for use in high-temperature environments the effects of which are comparable to those of an air temperature of 100°C or more and which may or may not be characterized by the presence of infra-red radiation, flames or the projection of large amounts of molten material.

- Emergency equipment for use in low-temperature environments the effects of which are comparable to those of an air temperature of 50°C or less,
- PPE to protect against falls from a height,
- PPE against electrical risks and dangerous voltages or that used as insulation in high-tension work,
- Motor cycle helmets and visors.



#### PPE and European Standards

#### What is a norm?

Technical rules which defines the essential and relevant characteristics of a product (or a method) established in order to guarantee its quality, functionning or resistance.

#### Why a norm?

The norm has the advantage of giving the possibility to standardize, to harmonize and to compare. It is consequently easier for the consumer to make his choice; it improves his security and his confidence into the product.

#### Is it compulsory?

According to the reglementation the norm can be compulsory and restricting or it can comes in complement of the general requirements to bring additional security to the user.

**General remarks:** Standards as well as all general information presented in this document are not exhaustive and may change at any time. They are given for information purpose and cannot engage our responsibility in 2 any case.

## Protective eyewear

To ensure the transmission and the integration of images, the eye must imperatively retain a number of characteristics:

- The integrity of the ocular shell and its elasticity.
- The transparency of the cornea and the various transparent media of the eye.
- The good contact between nerve cells, involving a retina in place

The risks threatening the integrity of the eye are manifold:

- Mechanical hazard (crushing, grinding, sanding, cutting ...).
- Chemical risk and / or biological (dust, liquid projection ...)
- Risk Linked to radiation (UV, IR, welding ...)
- Thermal-Danger (foundries, refineries ...)
- Electric-Danger (short-circuit arc)

The general standard applicable to protective eyewear is the  ${\bf EN166}$  standard (Personal eye protection, specifications.

It provides, inter alia, for the mandatory marking of the temples and lenses). This standard (together with the EN168) also provides for mechanical equipment resistance tests.

EN166	2001	
Optical Class		
Optical cla	ss 1 = Continuous work (better quality)	
Optical class 2 = Intermittent work		
Optical cla	ss 3 = Occasional work (lower quality)	

#### Identification symbols for mechanical strength

Symbol	Mechanical strength requirements
No symbol	Minimum robustness
S	Increased robustness
F	Low energy impact
В	Medium energy impact
А	High energy impact

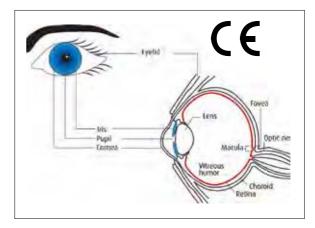
#### Symbols for field of use

Symbol	Designation
Pas de symbole	Basic use
3	Liquids
4	Large dust particles
5	Gas and fine dust particles
8	Short circuit electric arc
9	Molten metal and hot solids

Symbol T is used in conjunction with either F, B or A, to indicate that the eye protector conforms to the high speed particules classifications at extremes of temperature.







STANDARDS	
EN 165	Personal eye-protection - Vocabulary.
EN 166	Personal eye-protection - Specifications.
EN 167	Personal eye-protection - Optical test methods.
EN 168	Personal eye-protection - Non optical test methods.
EN 169	Personal eye-protection - Filters for welding and related techniques. Transmittance requirements and recommended utilisation.
EN 170	Personal eye-protection - Ultraviolets filters.
EN 171	Personal eye-protection - Infrared filters.
EN 172	Personal eye-protection - Sunglare filters for industrial use.
EN 175	Personal protection - Equipment for eye and face protection during welding and allied processes.
EN ISO 12312	Eye and face protection - Sunglasses and related eyewear



#### EN 170 SCALE NUMBER 2-1,2 - 2-1,7

Shade colour: clear, blue, yellow or green.

Colour perception: May be impaired unless

marked "2C".

#### Typical application:

For use with sources which emit predominantly ultraviolet radiation at wavelengths shorter than 313 nm and when glare is not an important factor: this covers the UVC and most of the UVD Bands (b).

#### Typical sources (a)

Low pressure mercury lamps such as lamps used to stimulate fluorescence or «black lights», mercury lamps, germicidal lamps.

(a) (the example given for typical sources is for general quidance).

(b) The wavelengths of these bands are recommended by IEC (that is 280 nm to 315 nm for UVB and 100 nm to 280 nm for UVC).



#### EN 172 SCALE NUMBER 5-2

Shade colour: Smoke.

Use: Recommended general filter for most uses.

#### Designation (1):

Medium.

(1) The designation is not translated literally in various language versions of this standard since the filter 'darkness' will be considered differently according to the intensity of light experience in the countries concerned.

#### EN 172 SCALE NUMBER 5.3-1

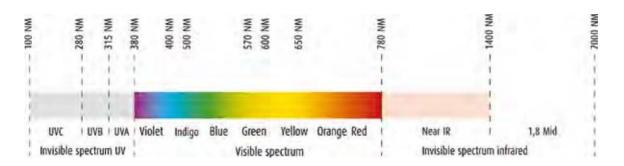
Colour: Smoke.

#### Typical application:

For use in the tropics and sub-tropics, for observation of the sky, for use in high mountain regions, snow covered areas, bright stretches of water, sandy plains, chalk and limestone quarries.

#### Designation (1): very dark.

(1) The designation is not translated literally in various language versions of this standard since the filter 'darkness' will be considered differently according to the intensity of light experience in the countries concerned.



#### The marking of oculars shall contain the relevant technical information presented as follows:

- Scale number (filters only) (optional) Identification of the manufacturer Optical class
- Symbol for mechanical strength (where applicable)
   Symbol for resistance to short circuit electrical arc (where applicable)
- · Symbol for non-adherence of molten metal and resistance to penetration of hot solids (where applicable)
- Symbol for resistance to surface damage by fine particles (where applicable) (symbol K)
- Symbol for resistance to fogging (where applicable) (symbol N) Symbol for enhanced reflectance (where applicable) (symbol R)
- Symbol for original or replacement ocular (optional) (symbols or ▽)
- In addition the ocular marking may include a certification mark and a mark to assist correct fitting of laminated oculars.

#### The marking of frames shall contain the relevant technical information presented as follows:

- Identification of the manufacturer\* The number of this standard (EN166)
- Field(s) of use (optional) (depending of the model)
- Symbol for increased robustness/resistance to high speed particles/Extremes of temperature (where applicable)
- Symbol indicating that the eye protector is designed to fit a small head (where applicable) (symbol H)\* Highest ocular scale number(s) compatible with the frame (where applicable)
- In addition the frame marking may include a certification mark.

#### Helmets and bump caps

#### Hazards related to falling objects:

The protection helmet plays a crucial part, which includes three aspects:

- Antipenetration function: reinforces the skull,
- Shock-absorbing function: absorbs shocks,
- Deflecting function: diverts the trajectory of the falling object.

#### Hazards resulting from impacts:

Less spectacular than falling objects, but more common, the helmet plays a protective role here too.

#### Electric hazards:

Helmets should be isolated and pass specific tests.

#### **Projection hazards:**

Liquid projection (chemicals), molten metal.



#### **STANDARDS**

#### EN 397 (EN397/A1)

#### Industrial safety helmet.

This sets out the physical and performance requirements, testing methods and marking requirements of protection helmets for the industry.

The obligatory requirements apply to protection helmets for everyday use in industry.

Among the obligatory requirements are:

- shock absorption: a hard-hitting mass of 5.0 kg (+/- 0.1kg) is dropped onto the top part of the helmet at a height of 1000 mm (+/- 5 mm),

- penetration resistance: a hard-hitting mass of 3.0 kg (+/- 0.05 kg) with particular characteristics is dropped onto the top part of the helmet at a height of 1000 mm (+/- 5 mm); it is to be noted if contact between the point and false head is found.
- flame-resistance.
- chin-strap anchorage points.

Optional additional requirements are applicable only when specifically demanded by the manufacturer of the helmet.



#### EN 50365:2002

Electrically Insulating Helmets for use on low voltage installations

For staff working on or near energized parts facilities not exceeding 1000 V ac (Class 0) or 1500 V dc. These equipments, combined with other protections, should avoid dangerous currents to cross through the head.

#### EN 13087-1 to EN 13087-10 Protective helmets: test methods

#### EN 812

#### Industrial bump caps.

This standard specifies the physical and performance requirements, the testing methods and the marking requirements of the bump caps for industry. The bump caps for industry are intended to protect the wearer when he hits his head against hard and stationary objects with sufficient force to cause lacerations or other superficial injuries. They are not intended to protect from the effects of projections or the falling of suspended or moving objects or loads. One should not confuse the bump caps for industry with the protection helmets for industry specified in EN 397.

#### EN 14052

High performance industrial safety helmets.

#### EN 443

#### Helmets for firefighters.

Specifies the main required characteristics for such an firefighter and assistance helmet. It takes into account protection level, confort and life span of the helmet. It allows options to take into consideration particular national requirements.

#### Using watermelons for a dramatic demonstration of the protection given by an industrial safety helmets











With the kind autorisation of: © Crown copyright - Health and Safety Laboratory

# Standards

#### Important/preamble

Do not use filtering masks if the proportion of oxygene is inferior to 17% (these masks do not provide oxygene). Do not use in explosive atmospheres. Always control the state of the mask and its airtightness. Check that this type of product is compatible with the foreseen work. Check the concentrations (MAC/OEL/TLV and APF).

MAC = Maximum Admissible Concentration

OEL = Occupational Exposure limit

TLV = Treshold Limit Value

APF = Assigned Protection Factor

Before using the products, read carefully the informations given with them.

#### What is an aerosol?

It is a suspension in a gaseous environment (air or other gas - air and a gas composed of 21% of oxygene, 78% of nitrogene and 1% of other gas) with solid or liquid colloidal particles (size superior to the size of molecules). The fog and the clouds are aerosols.

#### Two types of aerosols are distinguished:

#### Solid aerosol

- Aerosol which base is water. When they are scatterbrained, the particles staying in the air can be dangerous.
- Liquid aerosol which base isn't water (example: base of alcohol, solvant, ...). In this case, the same nebulization can be dangerous.

#### What are the particles of matter (or dust)?

They are bodies sufficiently little to stay in suspension in the air. It exists different types of dust: vegetal (for example, the pollen), domestic (spores), industrial (broyage, grinding: rocks, metals,...), raw materials (for example asbestos).

The particles are defined according to their characteristics (natural), their size (dimension or granulometry), their concentration (M.V.E. = middle value of exposition).

# According to their degree of dangerousity, we have three categories:

They make you feel ill-at-ease: they are inert particles (neither fibrogenes nor toxic ) with a diameter superior or equal to  $5\ \mathrm{microns}.$ 

=> their action is limited to respiratory tracts: nasal pits, pharynx, larynx.

They are noxious: inert or particles o fibrógenas (not toxic), diameter between 5 and 0.2 microns.

=> their action are felt in the median respiratory tracts: trachea, artery and bronchitis.

Toxic: inert, toxic, fibrógenas particles, with a diameter between 0,2 and 0,02 microns.

=> they go into the respiratory tracts: air cells and bronchus.

#### How are they dangerous?

The particles that are inhaled can provoke numerous respiratory problems and serious diseases (cough, asthma, bronchitis)

#### **STANDARDS**

#### EN 149:

Protection respirator. Filtering half-mask against particles.

Required conditions, tests.

**FFP1:** Protection against non toxic solid and liquid aerosols with concentrations up to 4,5 x MAC/OEL/TLV or 4 x APF.

FFP2: Protection against non toxic and low-to-average

toxicity solid and liquid aerosols, in concentrations up to

12 x MAC/OEL/TLV or 10 x APF.

**FFP3:** Protection against non-toxic, low-to-average toxicity and high toxicity solid and liquid aerosols, in concentrations up to  $50 \times MAC/OEL/TLV$  or  $20 \times APF$ .

#### EN 140

«Respiratory protective devices. Half-masks and quarter\_masks. Requirements, testing, marking».

#### EN 14387

«Respiratory protective devices. Gas filters and combined filters. Requirements, testing, marking».

These filters are classified in types and class according to the use and the filtering capacity.

\* \* Types:

Type A (brown): against gas and organic vapours with a boiling point superior to 65°C

Type B (grey): against certain gas and inorganic vapours (excluding the carbon monoxide)

Type E (yellow): against sulphur dioxide, other gas, acid vapours

Type K (green): against ammonia and organic derivatives of ammonia.

#### \*\* Class:

These 4 types have a class number

1 = filter of little capacity

2 = filter of middle capacity

3 = filter of high capacity

# Respiratory protection

#### EN 14683:

Surgical masks.

Directive 93/42/EEC on medical devices.

Mask to protect the environment of the wearer of the mask.

Not to be confused with protective masks (EN149) to protect the wearer from the environment (Directive 89/686/EEC on PPE).

#### FN 143

Breathing protective equipment. Filters against particles. Required conditions, tests, marked. Classification according to the filter's efficiency P1, P2 or P3.

#### **FN 136**

Respiratory protective devices. Full face masks.

Requirements, testing, marking.

EN 14683: Requirements	Type I	Type IR	Type II	Type IIR
Bacterial filtration efficiency	> 95%	> 95%	> 98%	> 98%
Differential pressure	< 29,4 Pa	< 49,0 Pa	< 29,4 Pa	< 49,0 Pa
Splash resistance	NR	> 120 mm Hg	NR	> 120 mm Hg

Type IR and IIR are resistant to blood splashes

EN 149: Requirements	FFP1	FFP2	FFP3
Total inward leakage	< 22%	< 8%	< 2%
Maximum penetration of test aerosol	< 20%	< 6%	< 1%
(Sodium chloride or paraffin oil)			
Breathing resistance:			
- inhalation (30 l/min)	< 0,6 mbar	<0,7 mbar	< 1,0 mbar
- inhalation (95 l/min)	< 2,1 mbar < 3,0 mbar	< 2,4 mbar < 3,0 mbar	< 3,0 mbar < 3,0 mbar
- exhalation (160 l/min)			



# Standards

# A number of hazards threatening the user's health and/or safety can be identified:

- Mechanical hazards: impacts, crushing, perforation...
- Chemical hazards: hazardous or corrosive products...
- Heat-related hazards: cold, heat, weather, molten metal projections...
- Electric hazards: electrical discharge, static electricity
- Hazards related to radiation and contamination: ultraviolet
- Biological hazards: allergies, irritations...
- Hazards related to the user's movements: skidding...

The materials used for those products are broken down into two classes:

#### \*\* CLASS

**Class 1:** all leather and other materials (except for all rubber or all polymer).

Class 2: all rubber (fully vulcanised) or all polymer (fully moulded).

#### **STANDARDS**

There are 3 categories of shoes for professional use:

#### EN ISO 20345

#### Specificacions for safety footwear for professional use.

Toe protection against shocks equivalent to a level of energy equal to 200J and the risks of flattening under a maximal weight of 15 kN.

#### EN ISO 20346

#### Specifications for protective shoes for a professional use.

Toe protection against shocks equivalent to a level of energy equal to 100J and the risks of flattening under a maximal weight of 10~kN.

#### EN ISO 20347

#### Specification for occupational footwear for professional use.

No specification about toe protection.

Test methods as well as specifications corresponding with norms requirements specified above are registered under the **EN ISO 20344** Standard.

Personal protective equipment - Test methods for footwear.

# Besides of the general requirements, the shoes may comply with additional facultative requirements.

#### **Examples:**

- Shoes with steel midsole: symbol «P»
- Heel energy absorption: symbol «E»
- Sole resistant to heat contact (300 °C maximum): Symbol **«HRO»**
- Sole cold insulation: «CI» symbol

Categories identifiable by a code group combinations gather most of common requirements.

#### **Examples:**

- Symbol **"S1"**: EN ISO 20345 + closed back + anti-static properties + heel energy absorption + Hydrocarbon resistant.
- Symbol **"S3"**: EN ISO 20345 + closed back + anti-static properties + heel energy absorption + water seeping and absorbtion + anti-puncture sole + studded sole.

#### **Determination of slip resistance:**

Marking SRA: Slip resistance on ceramic tile floor with SLS.

Marking **SRB**: Slip resistance on steel floor with glycerol.

Marking **SRC**: SRA + SRB

#### Ear protective devices

Too often the negative effects of noise in our everyday life at home or at work are badly known and are underestimated. Yet the consequences can be serious and irreversible. In order to remedy that, it is essential to be aware of the dangers and risks, and of the steps to be taken in the area of sound insulation and protective equipment.

#### What is sound? Its consequences?

Sound is a vibration (wave) in an environment (air for instance), whose pitch is higher or lower (frequency, expressed in Hertz). There are various characteristics to those waves:

1/ Their frequency (i.e. the number of vibrations per second, expressed in Hertz - Hz = 1 vibration per second). High-pitch sounds have a high frequency, low pitch sounds have a low frequency.

2/ The sound intensity is expressed in decibels (dB). It is said that a noise exceeding 85dB should trigger an alert, and that beyond 90dB, it becomes dangerous.

However, a noise can also be dangerous because of its frequency, its duration, its nature (continuous, intermittent, sudden, etc...).

In addition to auditory stress and gradual industrial deafness, noise can have adverse effects on work quality and result in psychosomatic effects in individuals (stress, tiredness, anxiety, etc.).

#### **STANDARDS**

#### EN 352-1

Hearing protectors.

#### Part 1: Ears-muffs.

This standard specifies the requirements in field of construction, conception, performance and printing of ears-muffs as well as information for end-user. It stipulates particularly the acoustic fading of ears-muffs in conformity with the EN 24869. This standard does not apply to ear-muffs to be settled on security helmets or integrated to helmets.

#### EN 352-2

Hearing protectors.

#### Part 2: Ears-plugs.

This standard specifies the requirements in field of construction, conception, performance and printing of ears-plugs as well as information for end-user. It stipulates particularly the acoustic fading of ears-plugs in conformity with EN24869-1 standard.



The regulation on material has recently changed with the registering of the European directive 2003/10/CE by the decree no. 2006-892 of July 19th 2006.

Since 2006 the exposure thresholds have been lowered. The first exposure threshold from which action has to be taken is 80dB (A) for 8 hours.

Daily exposure times to the noise requiring action

Noise level in dB (A)	Maximum exposure time
80	8h
83	4h
86	2h
89	1h
92	30 min
95	15 min
98	7.5 min

Being exposed for 8 hours to 80 dB (A) is exactly as dangerous as being exposed to 89 dB (A) for 1 hour!

#### EN 352-3

Hearing protectors.

Part 3: Ears-muffs attached to an industrial safety helmet.

This standard specifies the requirements for the construction, conception, performance and printing of ears-muffs attached on industrial helmets in conformity with EN 397 standard as well as information for end-user. It stipulates particularly the acoustic fading of ears-muffs attached on industrial helmets in conformity with EN 24869-1. As a same ear-muff can be attached on different models or sizes of industrial security helmets, the actual part of standard specifies many physics and acoustic requirement functions of the models or the size of the helmet ear-muffs are attached on. Requirements apply fully to the base combination, that is to say helmet and ear-muffs attached on one model or on one of the specified size of helmets. Requirements apply partially only to the additional combination, that is to say ear-muffs of the same model but attached on other helmets or sizes than the specified ones.

#### EN 352-4

Hearing protectors.

Part 4: Level-dependent ear-muffs.

This european standard complies with acoustic fading of ears-muffs functions of its level. This standard specifies the requirements in field of construction, conception, performance and printing for end-user regarding incorporation of fading disposal functions of the level.

#### EN 352-8

Hearing protectors.

Part 8: Entertainment audio ears-muffs

This standard specifies the requirements in field of construction, conception, performance and printing of ears-muffs as well as information for end-user regarding the electro-acoustic for entertainment (please consult also **EN458**; **EN13819** standards.)

#### The main risks:

- thermal risks (cold, heat, wind, flame, metal projections ...)
- risks related to poor visibility (building sites, roads...)
- chemical risks (dust, gas...)
- mechanical risks (cuts, shocks, tears, perforations...)
- biological risks (contamination by viruses, bacteria...)
- electric and electrostatic risks.

Clothing will be selected according to its ability to protect against the risk encountered but also depending on its comfort, its aestheticism, its functionality (adjustment methods, pockets, fastenings...).

#### **STANDARDS**

#### EN ISO 13688: General requirements

(This standard cannot be used alone but ony in association with a specific norm).



# EN ISO 11611: Protective clothing for use in welding and allied processes

Two protective classes. Class 1 being the lowest.

**Class 1** corresponds with protection for minor risks and for situation which would cause the less projections and a weak randiant heat.

**Class 2** protects from more important risks which could include more projections and a more important radiant heat. Letter A1 or A2 corresponds with the method used for spreading of the flamme, in conformity with the norm ISO 15024/2000.



# EN ISO 11612: Protective clothing - Clothing to protect against heat and flame

- Limited flame spread (code letter A1 and/or A2 according to the test method used)
- Convective heat = code letter B. Classification from B1 to B3.
- **Radiant heat** = code letter C. Classification from C1 to C4.
- **Molten iron splash** = Code letter E. Classification from E1 to E4.
- **Contact heat** = Code letter F. Classification from F1 to F3.

Each garment must bear the code letters A1 and / or A2 plus at least another code letter.



# EN 342: Protective clothing against cold.

Temperatures lower than -5°C



# EN 14058: Garments for protection against cool environments

Temperatures of -5°C and more



# EN 343: Protective clothing against bad weather

- resistance to **water penetration** class 1 to 3, class 1 is the lowest level
- resistance to **water vapour resistance** class 1 to 3, class 1 is the lowest level.



#### EN ISO 20471: High visibility clothing

The minimum surface of each visible material in m<sup>2</sup> will determine the class of the garment.

Minimum area in m²	Class 3 garments	Class 2 garments	Class 1 garments
Background material	0,8	0,50	0,14
Retro-reflective material	0,2	0,13	0,10
Combined performance material	_	_	0.20

#### Background fluorescent coloured material, for the day

Fluorescence is the ability of a material to reflect more light than it receives.

Consequently fluorescent colors seem more vivid than those which does not have this property

#### Retro-reflective material for night

A retro-reflector is a device capable of reflecting the light it receives back in directions close to the source. Thus the driver who light a pedestrian in the night with the headlights of his vehicle, can identifies very quickly the garment which features a retro-reflective material.

The coefficient of retro-reflection of the retro-reflective material must be class 2 to comply with EN ISO20471 (class 1 of previous EN471 standard has been cancelled).

(x) The figure next to the symbol indicates the class of the garment according to the compulsory minimum area.



#### EN 53

Protective clothing for industrial workers exposed to heat (excluding firefighter's and welders' clothing).



# (EN 943, EN 14605, EN ISO 13982, EN 13034) Protective chlothing for use against chemicals

Type 1: gaz tight.

Type 2: non gaz tight.

Type 3: liquid tight connections.

Type 4: spray-tight connections.

Type 5: protection to the full body against airborne solid particulates.

Type 6: limited protection against liquid chemicals.



**EN 14126:** Performance requirements and tests methods for protective clothing against infective agents.



**EN 1073-2:** Requirements and test methods for non-ventilated protective clothing against particulate radioactive contamination.



**EN 1149-5:** Electrostatic properties. Part 5: Material performance and design requirements.

# Protective gloves

Hands are precious but vulnerable. However, people continue not to take care of their security when they work.

The hands suffer because of lots of attacks, wounds, cuts (due to the heat or to chemical products), pittings, electric discharges shocks, flattenings, ... In numerous occasions, the lack of protection or the negligence in the choice of an adapted equipment causes damages that can be important and also irreversible (28% of the accidental causes during the work in 1998, that is to say the higher proportion compared to the proportions of the other members of the body). To protect ourself and decrease the risks, it is imperative to use adapted and resistant gloves according to standards of reference.

#### **STANDARDS**

#### EN 420

«General requirements for gloves»

(glove design and construction, innocuousness, size, marking, information supplied by the manufacturer...).



#### EN 388

Mechanical risks, 4 tests.

#### EN 407

#### Protective gloves against thermal risks (heat and/or fire)

- Burning behaviour Contact heat Convective heat
- Radiant heat Small splashes of molten metal
- Large spashes of molten metal

#### EN 1149 (1, 2 et 3)

Electrostatics properties

(in general for garments, see EN420 point 4.5).

#### **EN659** Protective gloves for fire fighters.

#### EN 1082 (1.2.3)

Gloves and arm guards protection against cuts and stabs by hand knives.

Part 1: chain mail gloves and arm guards.

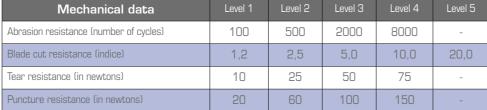
Part 2: gloves and arm guards made of material other than chain mail.

Part 3: impact cut test for fabric, leather and other materials.









#### EN 388, 6.1 - Abrasion resistance

This test is carried out using an instrument known as a Martindale tester in which the material to be tested is placed on a bed and a rubbing head of fixed size and weight, covered with a standard abrasive material, is moved in a circular motion over the test specimen. Four samples of the material are tested and the test result is the number of cycles required to rub through the material. The standard abrasive material used in this test is severe in action, it is unusual for textile materials to withstand the 2000 cycles required to meet performance level 3.

The performance level of a single material is decided by the lowest result of the four tests in accordance with the table above. For multiple layer materials each layer is tested separately.

#### EN 388, 6.2 - Blade cut resistance

The instrument used for this test consists of a circular, free rotating blade, under pressure from a standard weight, which is moved backwards and forwards over the surface of the test material over a fixed stroke length. The test result is the number of cycles taken for the blade to cut through the material. To take the sharpness of the blade into account the test is performed using a standard material before and after testing the sample, the mean of these two tests on the standard material is defined as blade cut index 1. The test result is the ratio of the number of cycles required to cut through the sample to the number of cycles required to give blade cut index 1.

Where multiple layer materials are involved the layers are assembled and tested as they would be in the garment.

#### EN 388, 6.3 - Tear resistance

In this test a sample of material to be tested is prepared in a standard way and clamped in the jaws of a strength testing machine. The jaws are moved apart at constant speed and the force needed to tear the material measured. For single materials the performance level is given by the lowest result of four tests. For multiple layer items each layer is tested separately, four tests carried out on each material. The performance level is based on the lowest individual result of the most tear resistant material.

#### EN 388. 6.4 - Puncture resistance

This test uses a standard, rounded point which is pushed through the material at a fixed speed and the force required for the point to penetrate through the material is measured. Where multiple layer materials are involved the layers are assembled and tested as they would be in the garment. Performance levels are awarded in accordance with the lowest of four test results.

#### EN 374 (1-2-3)

Protective gloves against chemicals and micro-organisms.



This pictogram, water impermeable and low protection against chemicals, is used when the glove only conforms to the penetration test and did not succeed the permeation test Tested as per EN374-2 (5.2 and 5.3)





This pictogram is used when the glove conforms both to the penetration test and to the permeation test.

Tested as per **EN374-2** as mentioned above and **EN374-3**.

Three codification letters corresponding to the 3 chemicals tested must be mentioned below the pictogram.



This pictogram (resistant to micro-organisms) is used when the glove conforms to the penetration test with at least one level 2.

EN 374: 1

Terminology and performance requirements.

#### EN 374-2. Determination of resistance to penetration

Penetration is defined as being the passing of a chemical (or of a micro-organism) through a glove on a **non-molecular scale**, through the seams and imperfections...

The gloves must be tight during the air and water leak testing.

#### EN 374-3. Determination of resistance to permeation.

By permeation one understands the mechanism by which the chemical crosses the material of a protective glove on a **molecular scale**. A list of 12 standard chemicals is defined. Each one of these chemicals is codified by an identification letter.

Letter Code	Chemical	Cas number	Class
А	Methanol	67-56-1	Primary alcohol
В	Acetone	67-64-1	Ketone
С	Acetonitrile	75-05-8	Nitrile
D	Dichloro- methane	75-09-2	Chlorinated hydrocarbon
Е	Carbone Disulphur	75-15-0	Organic compound containing Sulphur
F	Toluene	108-88-3	Aromatic hydro- carbon
G	Diethylamine	109-89-7	Amine
Н	Tetrahydrofurane	109-99-9	Heterocyclic Ether
I	Ethyl acetate	141-78-6	Ester
J	n-Heptane	142-82-5	Saturated Hydro- carbon
К	Sodium hydroxide 40%	1310- 73-2	Inorganic base
L	Sulphuric acid 96%	7664- 93-9	Inorganic mineral acid

Each glove will have to be tested against at least 3 of these chemicals and for which a passage time of at least 30 minutes (class 2) was obtained.

The breakthrough time (classified from 1 to 6) is defined as being the necessary duration for the chemical to pass from the external surface of the glove material to the other side of the material.

Breakthrough time	Class	Breakthrough time	Class
> 10 minutes	Class 1	> 120 minutes	Class 4
> 30 minutes	Class 2	> 240 minutes	Class 5
> 60 minutes	Class 3	> 480 minutes	Class 6



#### EN 12477

#### Protective gloves for welders.

Gloves type A: when high dexterity is required as for T.I.G welding processes.

Gloves type B: for other processes of welding.



#### EN 421

Protective gloves against ionizing radiation and radioactive contamination.



#### EN 511

#### Protective gloves against cold

Convective cold (level 0 to 4)
Contact cold (level 0 to 4)
Water proofness (level 0 to 4)



#### EN 60903

#### Gloves for electrical works

(TE = Tension of use V = volt).

Tested	Tension of use	Class	Category
2500 V	500 V	00	М
5000 V	1000 V	0	М
10000 V	7500 V	1	М
20000 V	17000 V	2	М
30000 V	26500 V	3	М

# Guide about chemical resistance products:

# HAND PROTECTION

Acetaldehyde		
Acetic acid anhydride 50%		
Acetic butyl ester		
Acetic ethyl		
Acetic methyl		
Acetic potassium		
Acetic propyl ester		
Acetone		
Acrylonitrile		
Ammonium chloride		
Ammonium hydrate		
Amyl alcohol		
Anhydrous hydrogen chloride		
Aniline		
Animal fat		
Aqua regia		
Asphalt		
Benzaldehyde		
Benzene		
Benzol		
Bleach		
Bleaches (hair)		
Butanol		
Calcium chloride		
Calcium phosphate		
Carbon tetrachloride		
Castor oil		
Chlorine		
Chloroacetone		
Chlorobenzene		
Chloroform		
Chromic acid 50%		
Citric acid		
Creosote		
Cresol		
Cuttings oil		
Cyclohexane		
Cyclohexanol		
Cyclohexanone		
Diacetone alcohol		
Dibutyl ether		
Dibutyl phtalate		

Dibutylphtalate		
Dichloroethane		
Diesel		
Diesel oil		
Diethanolamine		
Diethylamine		
Di-isobutyle Ketone		
Di-isocyanure		
Dimethyl formamide		
Dimethylformamide		
Dimethylsulfoxyde		
Dioctyl phtalate		
Diocylphtalate		
Ethanol (anhydrous)		
Ether		
Ethylamine		
Ethylaniline		
Ethylene glycol		
Expoxyde resin		
Fermentation alcohol		
Fertilizer		
Fluoride		
Formal		
Formaldehyde (30%)		
Fuel oil		
Furfural		
Gasoline car		
Glacial acetic acid		
Glycol		
Herbicides		
Hexane		
Household detergents		
Hydrazine 65%		
Hydrobromic acid		
Hydrofluoric acid 30%		
Isopropanol		
Kerosene		
Lacquer thinner		
Magnesia		
Methanamine		
Methanol		
Methylaniline		

# Standards

### Guide about chemical resistance products:

#### HAND PROTECTION

		, , ,
Methylene bromide		
Methylene chloride		
Methylethylketone		
Mineral oils		
Naphtalene		
Nickel chloride		
Nitric acid 20%		
Nitric ammonium		
Nitric calcium		
Nitric potassium		
Nitric sodium		
Nitrobenzene		
Nitromethane		
Nitropropane		
Octyl alcohol		
Oleic acid		
Oxalic acid		
Paint strippers (and varnishes)		
Paint thinners		
Pentachlorophenol		
Perchloroethylene		
Phenol		
Phosphoric acid		
Picric acid		
Pine oils		
Polyester resin		
Potassium bicarbonate		
Potassium chloride		
Potassium hydroxyde 50%		
Potassium iodide		
Potassium phosphate		
Potassium sulfate		
Printing ink		
Propane		
Propanol		
Propylene dichloride		
Propylene oxide		
Pyridine		
Silicane		
Silicon		
Sodium bicarbonate		
Sodium carbonate		

Sodium chloride		
Sodium hydroxyde 50%		
Sodium iodide		
Sodium phosphate		
Sodium sulfate		
Solvents for rubber		
Stoddard solvent		
Styrene		
Sulfuric acid 10%		
Sulfuric acid 95%		
Sulfuric ether		
Tartaric acid		
Tetrachloroethane		
Tetrachloroethylene		
Tin chloride		
Toluene		
Trichloroethylene		
Turpentine		
Vegetable oils		
White spirit		
Xylene		
Xylophene		
Zinc sulfate		



- +++ : Very good, for prolonged use but within the passage time (\*)
- ++: Good, for intermittent contact with the chemical material for less than the passage time  $(\mbox{\ensuremath{^{\ast}}})$
- + : Average, against hazardous splashes (\*)
- $\mathbf{0}:$  Not recommanded, do not use this gloves in this matter against the chemical  $(^{\ast})$
- $(^{\rm s})$  Passage time : is defined as being the necessary duration for the chemical to pass from the external surface of the glove material to the other side of the material, according to the method of EN374-3.

This guide only provides general information on materials and can not engage the responsibility of Singer Frères.

For your safety, testing should be performed prior to the use of gloves.

Always read carefully the instructions inclosed the product and check compliance with EN374 and the levels obtained from the chemical involved.

#### Fall arrest devices

When personal protective equipment cannot be used, protection of people at work must be ensured by an suitable fall arrest device, which will prevent from a fall of 1 meter maximum or which will limit in the same conditions the effects of a fall from a more important high. When such a personal protective equipment is used, the worker must never beeing alone in order to be rescued as soon as possible.

#### (2004-927 Decree - 1. september 2004).

A personal fall arrest protection device includes several crucial elements and a set of standards:

- Body holding device (with one or more hooking points)
- Link between that device and an anchoring point
- Anchor device (anchoring point and structural anchor)

#### > Body holding

The **safety harness**, body holding system designed to prevent falls, attached directly to the user.

This system can include various parts:

straps, buckles, etc...

A harness includes at least one anchoring point (or attaching point) providing a link with a lanyard.

This part is covered by standard EN361: «Personal protective equipment against from falls from a height: full body harnesses».

The harness may also include a belt (body holding device around the waist).

The belts are covered by standard EN358:

Personal protective equipment for work positioning and prevention of falls from a height:

 $\mbox{\tt `Belts}$  for work positioning and restraint and work positioning lanyards».

The belts can also be used as work positioning and retention belts, when hooked up to a lanyard (in this case, the gear does not fulfil the fall arrest function).

#### > Anti - fall link (connecting element)

It is the link between the person – the harness – and the anchoring point.

It is a lanyard that is typically made from rope, synthetic fibber, metal wire, strap or chain.

Maximum length = 2 meters.

This part is covered by standard **EN 354** «Personal protective equipment against falls from a height: Lanyards». These elements can include an energy absorber; the energy absorber helps absorb the impact of a fall. This element is covered by standard **EN 355** «Personal protective equipment against falls from a height: Energy absorbers».

The absorber is made up of a strap folded into a package. In the event of an impact, the package is torn open and the strap unfolds, thereby reducing the braking force to a non harmful level.

The anti-fall link is equipped with a connector that links to both: to the harness (fastening point) and to the anchoring point.

The connectors can be made directly with the lanyard and/or the energy absorber or sold separately and fitted on using a karabiner.

The connectors are covered by standard EN 362

«Personal protective equipment against falls from a height : Connectors».

Iron or steel connectors should be protected against corrosion.

#### > A anchor device

Structural anchor - anchor device - anchoring point - PPE. Structural anchor - PPE.

The anchoring device is covered by standard EN795 «Protection equipment against falls from a heights - Anchor devices – Requirements and testing».

#### (EN 795: 1996)

- Anchorage disposal
- «Component or series of components containing one or many anchorage points (EN795: 1996)
- The anchorage system is in conformity with the EN795 standard «Protection equipment from a heights Anchor devices Requirements and testing».

#### Various classes are defined in the standard according to the anchoring type.

- Class A1 Structural anchors designed to be secured to vertical, horizontal and inclined surfaces PPE.
- Class A2 Structural anchors designed to be secured to inclined roofs PPE.
- Class B Transportable temporary anchor devices PPE.
- Class C Anchor devices employing horizontal flexible lines non PPE.
- Class D Anchor devices employing horizontal rigid anchor rails PPE.
- Class E Dead weight anchors for use on horizontal surfaces PPE.

There can be safeguard supports between the anchors :

- anchor rail connectable to PPE
- flexible anchor line connectable to PPE



#### > Other products

- Guide type fall arresters on a rigid anchorage line: **standard EN 353-1**
- «Retail system made of rigid anchorage line, mobile fall arrest system with automatic fall arrester and of a lanyard settled to the mobile fall arrester. An Energy absorber can be added to the mobile fall arrester, to the lanyard or to the anchorage line (EN363).
- Static resistance: rigid anchorage line with settled mobile fall arrester and the lanyard: resist to a 15 kN force
- Dynamic performance: trial mass of 100 kg, braking force does not go over 6kN and stopping distance does not go over 1.0 m
- Guide type fall arresters on a flexible anchorage line: standard EN 353-2
- «Retail system made of flexibel anchorage line, mobile fall arrest system with automatic fall arrester and of a lanyard settled to the mobile fall arrester. An energy absorber can be added to the mobile fall arrester, to the lanyard or to the anchorage line (EN363).
- Static resistance:
- anchorage line: resist to a 20 kN force
- anchorage cable: resist to a 15 kN force
- Dynamic performance: trial rigid mass of 100 kg, braking force does not go over 6kN and stopping distance does not go over 3.0 m.

**EN360** Personal protective equipment against falls from a height- Retractable type fall arresters.

#### > Other standards

**EN 365** Personal protective equipment against falls from a height: General requirements for instructions for use and for marking».

**EN 363** Personal protective equipment against falls from a height - Fall arrest system.

(...) this standard describes, using examples, the manner in which components or component assemblies can be connected in a fall arrest system. These examples should help the buyer or user assemble all components properly and form a fall arrest system» (does not include anchoring points).

This standard also specifies «that a fall arrest harness and a lanyard without an energy absorber should not be used as a fall arrest system.»

**EN 364** Personal protective equipment against falls from a height. Test methods. Specifies the test methods for elements of a PPE fall arrest system and device.



# Index

A	PAGE	G	PAGE	Polar fleece (jackets, Jersey	178-170
Accessories (footwear)				Polos	
Accessories (safety helmets)		Garments (rainwear)	·	Polyurethane (apron)	•
Accessories (spectacles)		Garments (welding)		Polyethylene (glove)	
Adaptors (helmets)		Garments (winter)	•	Polyurethane (gloves)	
Anchorage hooks		Gloves (safety)		Polyurethane (rainsuits)	
Anchorage line		Googles (safety)		Polyurethane (sleeves)	
Aprons		Google (welding)		PVC (aprons)	
Armbands (high visibility)		H	PAGE	PVC (gloves)	
8	PAGE	Half-masks	61-65	PVC (sleeves)	
Bags (carrying)		Hand protection	69-145	-	DEGE
Balaclava		Harnesses	222-236	R	PAGE
Belt		HDPE (cut resistant gloves)	122-133	Raincoat	201
Belt (work positioning)		Headbands (ear-muffs)		Rainwear	•
Bib pants		Headbands (ear-plugs)	44-45	Respirators (particulate)	
Body-protection		Head protection		Respiratory protection	61-68
Body warmers 172		Headlamps		Retractable fall arrester	234
Boiler suits		Heat resistant gloves	80-85, 98, 130	S	PAGE
Bolero (Welding)	•	Helmets (safety)			
Boots		Helmets (welding)		Shoes (safety)	
Box (ear-plugs)		High-visibility (garments)		Short (work)	
Brennus (helmet)		Hoods (acrylic, Thinsulate®)		Single use	
Bump caps		Hoods (disposable, non-woven).		Single use (body)	
		Hoods (textile, leather)		Single use (foot)	
C	PAGE	Hooks (fall protection)		Single use (hand)	
Canadian gloves	70-71	Hot-mill gloves		Single use (respirators)	
Caps (polyamid-cotton)	57, 58	Household (gloves)		Single use (skull)	
Caps (skull protection)	57	Hygienic masks		Sleeves (protective)	197-199, 248
Cartridges (for full face masks) .	66			Snowflex®	100
Case (carrying)	271	1	PAGE	Socks	162
Cases (for spectacles)	31, 271	Interlock gloves	140	Softshell (jackets)	176-177, 214
Chinstrap	47, 50	Iris2 (helmet)		Soles	162
Cone (roads)	221			Spare visors	35, 36-37
Connectors (fall protection)	235	J	PAGE	Spectacles (safety)	20-30, 38
Cooldry® (T-shirt, Polo)	183,187	Jackets 170-17	1. 178-179. 212-213	Standards (CE information)	249-265
Coolmax® glove		Jacket (Welding)		Sun protection (eyewear)	
Cords (for spectacles)		Jackets (workwear) 170-17		Surgical mask	243
Cotton (gloves)		Jeans		Sweater	180-181
Coveralls (disposable)		Jersey (gloves)		T	PAGE
Coveralls (work wear)				-	
Coveralls (rainwear)		K	PAGE	T-shirts (short sleeves)	
Cover shoes (polyethylene)		Karabiners (fall protection)	235	T-shirts (long sleeves) (underw	
Cut resistant gloves	122-133	Kevlar® (gloves)	129-130	Terry (cotton gloves)	
D	PAGE	Kevlar® (sleeves)	199	Terry (cotton sleeves)	
Dielectric gloves		Kit harness		Thinsulate®	
Disposable (cover shoes)		Knee-pads	193	Torch	
Disposable gloves		L		Triangle (warning)	
Disposable filters masks		L	PAGE	Trousers (workwear)	•
Disposable work wear (coveralls		Lab coat	193		
		Lanyards	231-233	Trousers (for welder)	197
Disposable (head)		Latex (gloves)	106-109, 245	U	PAGE
Dots (gloves)		Leather (gloves)	70-85		
Drivers (gloves)		Leather (welding garments)	196-197	Underpants	
		LED (headlamps)	56	Underwear	195
E		Leggings	197	V	PAGE
Earmuffs		••	DACE	Vinyl (gloves)	2/IE
Ear plugs	, -	M	PAGE	Virgi (gloves)	
Electrical gloves		Mechanical (gloves)	137	Visors (for helmets)	
Energy absorbers	234	Modal® (underwear)	195	VISUES (IUI TIEITTELS)	47, JC
F	PAGE	N	PAGE	W	PAGE
Face-shields	35, 36-37	Nannana (-l-:)		Waders	160
Fall arrest	232	Neoprene (gloves)		Warn signalization	
Fall protection	222-236	Ninja® (gloves)89,		Water repellent (gloves)	
Filters (for half-masks)		Nitrile (gloves)		Welding (googles and hood)	
Fire-resistant (gloves)		Nymfit® (gloves collection)		Welding (gloves)	
Fire-retardant (work wear)		Nymflex® (glove)	118	Welding (garments)	
Foot (protection)	154-161	P	PAGE	Welding (eyewear)	
Forest kit	37, 48	Parkas	16/-160 205 200	Work positioning lanyards	
Full face masks	66, 67	Particulate respirators		Work garments	



# Just one strategy : your satisfaction

# Organisation...

## Finding the means of real independence

Guaranteeing an efficient service, becoming ever more responsive, offering a real service quality to exceed customer requirements... Patrick and Laurent Singer, the third generation of managing brothers, set themselves so many objectives.

In order to make achieving these ambitions possible, a new organisation was set up in 2005, materialising with the construction of a  $5000 \text{ m}^2$  logistics platform on the North Sea coast, in the Dunkirk region.

This ultra-modern facility, intended for the storage and distribution of more than 1200 products (more than 3.5 million items permanently), has enabled organisation to be optimised and is the pledge of a shared development among all Singer Frères partners.

# The story

# Going back in time...

The story starts over 100 years ago in Saint-Omer in the North of France. Two brothers, Achille and Maurice, tan and transform hides to produce articles of saddlery.

### ...and following the paths that lead to P.P.E.

The story could have stopped at the time of the Second World War, in the ruins of the Audomaroise tannery, which was destroyed by bombings. But it is during these postwar years that a demand for protective gloves, primarily out of leather, starts to emerge, allowing the company to then get back on its feet.

It is the beginning of a new development.

# An opening...

### Taking the world as a partner

Michel and Etienne, the two sons of Maurice, are then in control of the company. They invest in modern production tools to meet the growing demand of the market. The story picks up speed in the Seventies. The visionary company anticipates the changes which are to gradually mark the world economy and the French company. It then sets about gradually sharing out its know-how through collaborating with loyal partners. Its strategic positions enable it to design and manufacture new products whilst at same time widening its influence on the European market.

# Know-how...

## Standing out through excellence

Singer Frères' know-how is shown not only in the quality and reliability of the products and services on offer, but also in the quality of the relationships of trust and progress that the company has succeeded in establishing with all its partners.



# The future...

# Creating the products of tomorrow today

New materials, new technology, new trends... the individual protection equipment has to be even more ergonomic from now on, more anatomical, more effective and it must follow trends in fashion closely. More than ever Singer Frères is putting its energy into offering you safe and comfortable PPEs which are up-to-date with current trends.











Bags, briefcases, carrying cases, etc.

# All designed to enhance the effectiveness of your operations in the field



Products, standards, risks...

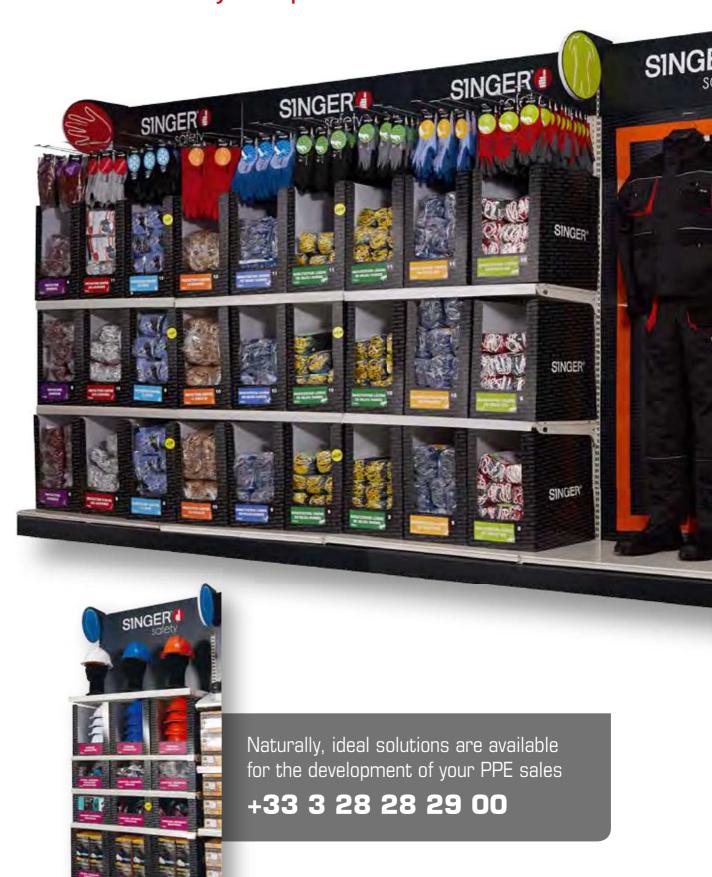
Customized training sessions on your premises.

# Everything is designed to enhance the expertise of your sales staff



# Shop in shop, display boxes, POSA...

# Everything is designed to stimulate business at your points of sale



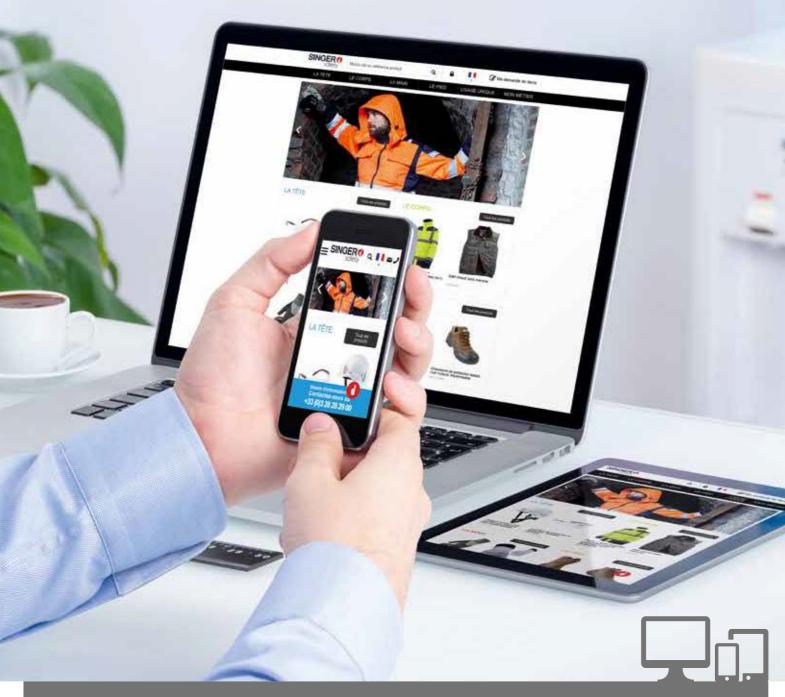


- ✓ Customized site design analysis
- ✓ Supply and installation
- ✓ Signage kit
- ✓ Initiatives for the generation of customer traffic

Technical data sheets, on-line product searches...

- ✓ Multi-criteria searches
- ✓ Downloading of technical data sheets
- ✓ Extensive database

Everything is designed to enhance your performance



A single website address for your sales staff www.singer.fr

#### **GENERAL TERMS OF SALE**

#### 1. Object and scope

Any product order implies unconditional acceptance by the buyer and full compliance with these general terms of sale which prevail over any other document of the buyer, and particularly any general terms of purchase, except otherwise formally and expressly established by SINGER FRERES.

These general terms of sale apply to all sales of products by SINGER FRERES unless otherwise agreed in writing by the parties prior to the order.

As a result, the placing of an order by a customer implies the unconditional acceptance of these terms of sale by the customer, unless special terms have been granted to the buyer in writing by SINGER FRERES.

Any other document apart from these general terms of sale and in particular catalogues, brochures, advertisements and notices are merely for information purposes and are noncontractual.

#### 2. Contract formation - Orders

- 2.1- The price lists of SINGER FRERES do not constitute an offer, and orders are only valid once they have been accepted.
- 2.2- Order shall mean any order concerning the products of SINGER FRERES appearing in its price lists, and accepted by SINGER FRERES.
- 2.3- All orders are binding, unless expressly agreed otherwise in writing by SINGER FRERES. 2.4- Any request to amend the composition or volume of an order placed by a customer can only be acted upon by SINGER FRERES if the request is made in writing, including by fax or email, and received by SINGER FRERES EIGHT (8) days at the latest following receipt of the initial order. SINGER FRERES reserves the right to deliver the quantities ordered

#### 3. Delivery - Transport

3.1- Delivery times are given for information purposes only, as they are dependent on the availability of the carriers and the order in which orders are received.

Unless expressly agreed otherwise, no delay in delivery times shall result in compensation or cancellation of an order.

This rule applies in particular to the following cases:

with a tolerance of +/- FIVE PER CENT (5%).

- 3.1.1- non-compliance of the payment terms by the buyer.
- 3.1.2- force majeure or event likely to delay or suspend the delivery of the goods.
  3.2- Products and supplies, even when agreed carriage free, travel at the risk of the buyer (customer) who shall be responsible, in the event of damages or losses, to enforce any reservations and exercise such redress against the carriers, who shall be solely responsible; delivery is therefore deemed to have taken place once the shipment has left the stores or warehouses of SINGER FRERES.
- 3.3- The minimum order amount is one hundred and fifty (150) euros before tax.
- 3.4- The carriage free amount is seven hundred (700) euros before tax for deliveries within mainland France. Orders that are not carriage free are subject to a transport fee of twentyfive (25) euros before tax.

#### 4. Reception

- 4.1- Without prejudice to any redress to be exercised directly against the carrier by the buyer. claims concerning patent defects or non-compliance of the product delivered with the product ordered must be expressed in writing by registered letter with acknowledgement of receipt within EIGHT (8) days of delivery. After this period, any further claims shall not be accepted by SINGER FRERES.
- 4.2- The buyer shall be responsible for supplying all supporting documents relating to the existence of any defects or anomalies found.
- 4.3- The buyer shall give SINGER FRERES every opportunity to investigate said defects or anomalies and to remedy such defects where necessary
- 4.4- The buyer shall not make any repairs or have a third party make any repairs, otherwise no further redress may be exercised against SINGER FRERES.

#### 5. Return - Terms

- 5.1- Any product return must be formally agreed in advance between SINGER FRERES and the buyer.
- 5.2- Any product returned without such consent shall be kept for the buyer for a period of THREE (3) months in the premises of SINGER FRERES, and shall not result in the issuance of a credit note. After this period, any product unduly returned and not taken back shall be deemed to be abandoned by the buyer and SINGER FRERES shall be free to dispose of the product at its own discretion.
- 5.3- Except in the event of non-compliance of the delivery with the order, attributable to SINGER FRERES, return costs and risks shall be borne by the buyer at all times
- 5.4- No return shall be accepted after a period of EIGHT (8) days following the delivery date.

#### 6. Return - Consequences

- 6.1- Any return accepted by SINGER FRERES shall result in a credit note made out to the buyer after a quality and quantity inspection of the returned products.
- 6.2- In the event of a patent defect or non-conformity of the products delivered, duly acknowledged by SINGER FRERES according to the conditions specified in Article 4 "Reception", the buyer may request the free replacement of, or a refund for the products by SINGER FRERES exclusive of any other compensation.

#### 7. Guarantees - Scope

- 7.1- Products are guaranteed against any material or manufacturing defect for a period of FIFTEEN (15) days following the delivery date.
- .2- Any product benefiting from the guarantee should first be sent by the customer to SINGER FRERES.
- 7.3- Under the guarantee, it shall be the duty of SINGER FRERES to replace or repair the product or part found to be defective by SINGER FRERES.
- 7.4- Repairs under the guarantee shall not extend the term of the guarantee.

#### 8. Guarantee - Exclusion

- $8.1\mbox{-}$  The guarantee shall not apply if the defect results from:
- normal wear of the item. - faulty maintenance.
- abnormal use,
- any modification to the product not agreed to or specified by SINGER FRERES,
- an external accident

- improper assembly,
- a defect resulting from force majeure,
- abnormal storage conditions at the customer's premises.
- 8.2- In the same way, it is expressly agreed that the guarantee shall not apply to patent defects; in the event of a patent defect, the buyer must comply with Article 4 "Reception". 8.3- The responsibility of SINGER FRERES with regard to the guarantee created by the Act of 19 May 1998 (Articles 1386-1 et seq. of the French Civil Code) is expressly excluded. The buyer shall not hold SINGER FRERES liable on this basis, either directly or through an impleader.

#### 9. Price - Payment terms - Penalties

9.1- SINGER FRERES prices are set by the price list in force on the day of placing the order. Prices are stated before tax. Their firm or revisable nature and their amount shall be specified in the special terms.

9.2- Invoices are payable at the SINGER FRERES head office:

9.2.1- in cash, within a maximum period of EIGHT (8) days as from the invoice date after deducting a 0.5% discount, or by cheque or bank transfer.

9.2.2- within a period agreed by the parties, according to Article L.441-6 of the French Commercial Code and the provisions of the Law on the Modernisation of the Economy (LME) of 4 August 2008, to pay the sums due at FORTY FIVE (45) days end of the month or SIXTY (60) days from the date of issue of the invoice, namely:

9.2.2.1- by accepted draft issued by SINGER FRERES, within a maximum period of return of EIGHT (8) days as from the draft date, without any discount.

9.2.2.2- by promissory note issued by the customer, within a maximum period of EIGHT (8) days as from the invoice date, without any discount.

9.3- Failing payment on any due date, other outstanding amounts shall fall due immediately, even if they are subject to drafts.

9-4- In addition, and in particular pursuant to Act 92-1442 of 31 December 1992 amended, any amount including tax not paid by the due date shall give rise:

9.4.1- to payment by the customer of penalties fixed at three times the legal interest rate and calculated on the basis of the total outstanding amount. 9.4.2- in application of Articles L. 441-3 and L. 441-6 of the French Commercial Code,

to payment by the customer of a penalty charge as compensation for recovery costs. This penalty charge has been fixed at FORTY (40) euros net of tax per invoice by Decree 2012-1115 of 2 October 2012.

Penalties and compensation shall become payable as of right and shall be automatically debited from the customer's account.

9.5- When the buyer's credit deteriorates, SINGER FRERES reserves the right, even if an order has been partially shipped, to require any guarantee from the buyer as it deems fit for the proper performance of undertakings. Any refusal by the customer to provide any such guarantee shall entitle SINGER FRERES to cancel all or part of the orders or ongoing contracts.

9.6- Exchange risks shall be borne by the buyer.

#### 10. Force majeure

Occurrences such as force majeure or unforeseeable accidents are deemed to be outside the control of the parties, which they could not reasonably be expected to foresee, and which could not be prevented or overcome, insofar as their occurrence makes the execution of the obligations totally impossible.

In particular, the following are deemed to be force majeure or unforeseeable accidents, releasing SINGER FRERES from its obligation to deliver within the originally scheduled times: lock-out, strikes by all or part of the personnel of SINGER FRERES or its usual suppliers or carriers, fire, war, production shut-downs due to accidental failure, the inability to obtain raw materials, epidemics, closure of transport routes due to heavy thaw, road blocks, strikes or disruption to supply of energy or to other supply not attributable to SINGER FRERES.

In such circumstances, SINGER FRERES shall notify the customer by any written means, in particular by fax or email, within SEVENTY-TWO (72) hours from the date of occurrence of the incident. The contract will be suspended automatically without compensation, from the date of occurrence of the incident.

If the incident should last more than THIRTY (30) days from the date of occurrence thereof, the contract of sale entered into by SINGER FRERES and its customer may be terminated by either party, without either party claiming the right to damages.

Such termination shall take effect on the date of first presentation of the registered letter with acknowledgement of receipt terminating said sales contract.

#### 11. Automatic termination clause

11.1- In the event of the buyer's failure to perform any one of its duties, the sale shall be automatically terminated without prejudice to any damages, additional charges or penalties that may be claimed by SINGER FRERES.

11.2- Termination shall take effect automatically two days after the sending of a formal notice remaining without effect.

12. Dispute settlement – Applicable law 12.1- In the event of any difficulty to perform and/or interpret the agreements, any dispute, whatever the subject thereof, shall be brought before the exclusive competence of the Dunkirk Commercial Court, even in the event of any clause to the contrary in the customer's letters or invoice, or in the event of an impleader or multiple defendants.

12.2- Any question relating to these general terms of sale as well as the sales governed by said terms, which are not covered by these contractual terms, shall be governed by French law to the exclusion of any other right, and on a suppletive basis by the Vienna Convention on the international sale of goods.

#### 13. Reservation of title

13.1- Pursuant to the provisions of the Act dated 12 May 1980 and Article L. 624-16 paragraph 2 of the French Commercial Code, the seller shall retain ownership of the goods sold until the full payment of the principal and interest amount of the price. Any clause to the contrary, including any clause inserted in the general terms of purchase, shall be deemed null and void.

13.2- Failure to pay on any of the due dates may result in the goods being reclaimed. These provisions do not prevent the risks connected with the products sold, as well as any liability for any damages they may cause, from being transferred to the buyer upon delivery.

Singer Frères SAS Port 4101 Rue de l'Europe Zone Eurofret - Craywick 59279 Loon plage - France

Tél : 33 (0)3 28 28 29 00 Fax : 33 (0)3 28 28 29 01 E-mail : singer@singer.fr

Your distributor

www.singer.fr

