



S



02 HEAD

62

BODY

91 **FEET**

14 **HAND**

115 TECHNICAL INFORMATION





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 $C \in$

Construction • Engineering • Manufacturing • Mining



DIAMOND I

Non ventilated zip adjusted helmet UV resistant HDPE shell Textile lining with 3 bands & 8 fixing points 2 positions for vertical adjustment



Zip tightening with textile lining











DIAMOND II

Non ventilated zip adjusted helmet UV resistant HDPE shell LDPE lining with 3 bands & 8 fixing points 2 positions for vertical adjustment



Zip attachment











DIAMOND III

Non ventilated ratchet adjusted helmet UV resistant HDPE shell Textile lining with 3 bands & 8 fixing points 2 positions for vertical adjustment





















HELMET



Construction • Engineering • Manufacturing • Mining



DIAMOND IV

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Non ventilated ratchet adjusted helmet UV resistant HDPE shell LDPE lining with 3 bands & 8 fixing points 2 positions for vertical adjustment



Ratchet Attachment











DIAMOND X

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Ventilated zip adjusted helmet UV resistant HDPE shell Textile lining with 3 bands & 8 fixing points 2 positions for vertical adjustment











DIAMOND XI

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Ventilated zip adjusted helmet UV resistant HDPE shell LDPE lining with 3 bands & 8 fixing points 2 positions for vertical adjustment



LDPE Lining





















HELMET



Construction • Engineering • Manufacturing • Mining



DIAMOND XII

 $C \in$

Ventilated ratchet adjusted helmet UV resistant HDPE shell Textile lining with 3 bands & 8 fixing points 2 positions for vertical adjustment











DIAMOND XIII

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Ventilated ratchet adjusted helmet UV resistant HDPE shell LDPE lining with 3 bands & 8 fixing points 2 positions for vertical adjustment















CH 01 STR

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20mm size adjustable textile chin strap Self breaking system with strechable fabric

CH 02 STR

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20mm size adjustable textile chin strap with chin guard Self breaking system with strechable fabric





















BUMP CAP



Automobile • Aviation • Food & Beverage • Logistics



SAPPHIRE SP G1

Light weight impact resistant baseball type cap HDPE shell inside with EVA reinforcement Short peak polyester-cotton covering Velcro adjustable size from 52 to 56 cm



HDPE inside shell









TOPAZ O

Light weight impact resistant baseball type cap ABS shell inside with EVA reinforcement Long peak polyester-cotton covering Velcro adjustable size from 58 to 62 cm



Velcro









TOPAZ HI VIS

Light weight impact resistant baseball type cap ABS shell inside Cotton polyester outer shell with inside EVA

reinforcement

Velcro adjustable size from 58 to 62 cm









ABS inside shell















Bio technology • Chemical • Construction • Pharmaceutical



M 1102P

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Filtering half mask to protect against particles
FFP1 foldable white coloured half mask
Soft non woven fabric with nose clip for adjustment
Adjustable elastic strap for fastening







M 1202PV

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Filtering half mask to protect against particles FFP2 foldable white coloured half mask with exhalation valve

Soft non woven fabric with nose clip for adjustment Adjustable Elastic strap for fastening



Valve







M 3102PV

(E

Filtering half mask to protect against particles
FFP1 foldable yellow coloured half mask
with exhalation valve
Soft non woven fabric with nose clip for adjustment

Adjustable elastic strap for fastening







Agriculture • Chemical • Construction • Pharmaceutical



M 3202P

(€

Filtering half mask to protect against particles FFP2 foldable yellow coloured half mask Soft non woven fabric with nose clip for adjustment Adjustable elastic strap for fastening



Nose Clip







M 2102P

(E

Filtering half mask to protect against particles FFP1 foldable grey coloured half mask Soft non woven fabric with nose clip for adjustment Adjustable elastic strap for fastening







M 2202PV

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Filtering half mask to protect against particles
FFP2 foldable grey coloured half mask
with exhalation valve
Soft non woven fabric with nose clip for adjustment
Adjustable elastic strap for fastening



Valve







Agriculture • Chemical • Construction • Pharmaceutical



L 1202PV

 $C \in$

Aesthetically designed Foldable FFP2 face masks
Particulate matter filtering disposable mask
Exhalation valve is available
Concealed Nose clip
Ultrasonically sealed
Head loop elastic fastening system





EN 149:2001+A1:2009



L 2102PV



Disposable FFP1 face mask
Exhalation valve is available
Foldable type Nose clip for better fit
Ultrasonically sealed mask
Head loop elastic fastening system





EN 149:2001+A1:2009



L 1102P



Aesthetically designed Foldable FFP1 face mask Particulate matter filtering disposable mask Concealed Nose clip Ultrasonically sealed Head loop elastic fastening system





EN 149:2001+A1:2009



Agriculture • Chemical • Construction • Pharmaceutical



L 3202P

 ϵ

Aesthetically designed Foldable FFP2 face mask Particulate matter filtering disposable mask Concealed Nose clip Ultrasonically sealed Head loop elastic fastening system





EN 149:2001+A1:2009



L 3103P



Aesthetically designed Foldable FFP1 face mask Particulate matter filtering half mask Concealed Nose clip Ultrasonically sealed Ear loop elastic fastening system





EN 149:2001+A1:2009



L 2103PV



Aesthetically designed Foldable FFP1 face mask
Particulate matter filtering half mask
Concealed Nose clip
Exhalation valve is available
Ultrasonically sealed
Ear loop elastic fastening system





EN 149:2001+A1:2009



Agriculture • Chemical • Construction • Pharmaceutical



L 1203PV

(E

Aesthetically designed Foldable FFP2 face mask
Particulate matter filtering disposable mask
Exhalation valve is available
Concealed Nose clip
Ultrasonically sealed
Earloop elastic fastening system





EN 149:2001+A1:2009



L 1203P



Aesthetically designed Foldable FFP2 face mask
Particulate matter filtering disposable mask
Exhalation valve is available
Concealed Nose clip
Ultrasonically sealed
Earloop elastic fastening system





EN 149:2001+A1:2009



L 3302PV



Aesthetically designed Foldable FFP3 face mask
Particulate matter filtering half mask
Concealed Nose clip
Exhalation valve is available
Ultrasonically sealed
Ear loop elastic fastening system





EN 149:2001+A1:2009



Agriculture • Chemical • Construction • Pharmaceutical



L 2302P

 $C \in$

Aesthetically designed Foldable FFP3 face mask Particulate matter filtering disposable mask Concealed Nose clip Ultrasonically sealed Head loop elastic fastening system





EN 149:2001+A1:2009



L 2302PV



Aesthetically designed Foldable FFP3 face mask Particulate matter filtering disposable mask Exhalation valve is available Concealed Nose clip Ultrasonically sealed Head loop elastic fastening system





EN 149:2001+A1:2009



CK86P3



Non-Sterile
Pleated disposable 3-layer Hygine mask
Blue colour
Concealed strip to fit securely on the nose
Offers snuggly fitting
Elastic ear hooks for comfort during wearing
Ultrasonic sealing ensures strong bonding





EN 14683:2020

DISPOSABLE SURGICAL MASK



Agriculture • Chemical • Construction • Pharmaceutical



CM86P3

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Non-Sterile

Pleated disposable 3-layer Hygine mask Green colour

Concealed strip to fit securely on the nose Offers snuggly fitting

Elastic ear hooks for comfort during wearing Ultrasonic sealing ensures strong bonding





EN 14683:2020



KL86P3



Non-Sterile

Pleated disposable 3-layer Hygine mask
Pink, Green & Blue aesthitically printed design
Concealed nose clip to fit securely on the nose
Offers snuggly fitting

Elastic ear hooks for comfort during wearing Ultrasonic sealing ensures strong bonding





EN 14683:2020



NK86L3



Non-Sterile

Pleated disposable 3-layer Hygine mask Red aesthitically printed design Concealed nose clip to fit securely on the nose Offers snuggly fitting Elastic ear hooks for comfort during wearing

Ultrasonic sealing ensures strong bonding





EN 14683:2020





Material Handling • Oil & Gas • Paint & Chemical • Petrochemical





Cut and sewn nitrile gloves Yellow coloured lite NBR palm coating Cotton interlock liner with knitted wrist Available sizes: 7 - 11













Cut and sewn nitrile gloves
Blue coloured lite NBR palm coating
Cotton interlock liner with knitted wrist
Available sizes: 7 - 11











LFKB

Cut and sewn nitrile gloves
Blue coloured lite NBR full coating
Cotton interlock liner with knitted wrist
Available sizes: 7 - 11











LFCB

Cut and sewn nitrile gloves
Blue coloured lite NBR full coating
Cotton interlock liner with safety cuff
Available sizes: 7 - 11











Material Handling • Oil & Gas • Paint & Chemical • Petrochemical





Cut and sewn nitrile gloves Yellow coloured lite NBR full coating Cotton interlock liner with knitted wrist Available sizes: 7 - 11











Eco range cut and sewn nitrile gloves Yellow coloured lite NBR palm coating Cotton interlock liner with knitted wrist Available sizes: 7 - 11



EN388









SFCB

Eco range cut and sewn nitrile gloves Blue coloured lite NBR full coating Cotton fleecy liner with safety cuff Available sizes: 7 - 11









SFKB

Eco range cut and sewn nitrile gloves Blue coloured lite NBR full coating Cotton fleecy liner with knitted wrist Available sizes: 7 - 11













Material Handling • Oil & Gas • Paint & Chemical • Petrochemical



MPKB

Cut and sewn nitrile gloves
Blue coloured medium NBR palm coating
Cotton interlock liner with knitted wrist
Available sizes: 7 - 11







EN388



Cut and sewn nitrile gloves
Blue coloured medium NBR palm coating
Cotton interlock liner with safety cuff
Available sizes: 7 - 11











MFCB

Cut and sewn nitrile gloves
Blue coloured medium NBR full coating
Cotton interlock liner with safety cuff
Available sizes: 7 - 11











MFKB

Cut and sewn nitrile gloves Blue coloured medium NBR full coating Cotton interlock liner with knitted wrist Available sizes: 7 - 11











Material Handling • Oil & Gas • Paint & Chemical • Petrochemical



TFCB

Cut and sewn nitrile gloves
Blue coloured heavy NBR full coating
Cotton fleecy liner with safety cuff
Available sizes: 7 - 11











TPCB

Cut and sewn nitrile gloves
Blue coloured heavy NBR palm coating
Cotton fleecy liner with safety cuff
Available sizes: 7 - 11











TFKB

Cut and sewn nitrile gloves
Blue coloured heavy NBR full coating
Cotton fleecy liner with knitted wrist
Available sizes: 7 - 11











TPKB

Cut and sewn nitrile gloves Blue coloured heavy NBR palm coating Cotton fleecy liner with knitted wrist Available sizes: 7 - 11











Material Handling • Oil & Gas • Paint & Chemical • Petrochemical





Rexin cuff



Extended nitril coating



Glass blended para aramid liner

DFRB

Cut resistant cut and sewn nitrile gloves Level 5 blade cut and Level 4 abrasion resistant Blue coloured heavy NBR full coating Cotton fleecy liner shell with para-aramid lining Available sizes: 8 - 11



















Material Handling • Oil & Gas • Paint & Chemical • Petrochemical



TFCBR

Cut and sewn nitrile gloves Blue coloured heavy NBR full rough coating Cotton fleecy liner with safety cuff Available sizes: 7 - 11













TPCBR

Cut and sewn nitrile gloves Blue coloured heavy NBR palm rough coating Cotton fleecy liner with safety cuff Available sizes: 7 - 11













LITE IL 30

30cm gauntlet style nitrile gloves White coloured lite NBR full coating Cotton interlock lining Available sizes: 7 - 11



















40cm gauntlet style nitrile gloves White coloured lite NBR full coating Cotton interlock lining Available sizes: 7 - 11



















NITRILE GAUNTLET



Material Handling • Oil & Gas • Paint & Chemical • Petrochemical



TECHO IL 30

30cm gauntlet style nitrile gloves Yellow coloured heavy NBR full coating Cotton interlock lining Available sizes: 7 - 11











EN ISO 374-5



EN388 EN ISO 374-1:



TECHO IL 40

40cm gauntlet style nitrile gloves Yellow coloured heavy NBR full coating Cotton interlock lining Available sizes: 7 - 11















EN388 EN ISO 374-1:



TECHO FL 30

30cm gauntlet style nitrile gloves Blue coloured heavy NBR full coating Cotton fleecy lining Available sizes: 7 - 11











EN ISO 374-5



EN388 EN ISO 374-1:









TECHO FL 40

40cm gauntlet style nitrile gloves Blue coloured heavy NBR full coating Cotton interlock lining Available sizes: 7 - 11











EN ISO 374-5



EN388 EN ISO 374-1:









Automobile • Chemical & Paint • Construction • Oil & Gas



P35NHK

Seamless polyester nitrile gloves 15 gauge grey polyester liner Sandy finish black NBR palm coating on 3/4th smooth finish blue Available sizes: 7 - 11

















P25NGA

Seamless polyester nitrile gloves 15 gauge white polyester liner Smooth finish grey NBR palm coating Available sizes: 7 - 11













P34NBA

Super grip seamless nitrile gloves 13 gauge grey polyester liner Smooth finish black NBR palm coating Available sizes: 7 - 11



Anti slip surface











PR4NGA

Super grip seamless nitrile gloves 13 gauge yellow polyester liner Smooth finish grey NBR palm coating Availablessizes: 7 - 11











Anti slip surface



Logistics • Material Handling • Manufacturing • Repairs & Maintenance



P65NAG

Seamless polyester nitrile gloves 15 gauge hi-vis green polyester liner Sandy finish blue NBR palm coating Available sizes: 7 - 11













P85NAG

Seamless polyester nitrile gloves 15 gauge orange polyester liner Sandy finish blue NBR palm coating Available sizes: 7 - 11









Seamless polyester nitrile gloves 15 gauge grey polyester liner Sandy finish black NBR palm coating Available sizes: 7 - 11













EN388



NEW

M25NWC

Seamless chemical resistant nitrile gloves 15 gauge grey nylon liner Foamy finish white NBR full coating Available sizes: 7 - 10











Logistics • Material Handling • Manufacturing • Repairs & Maintenance



N33VBA

Seamless dotted nitrile gloves 13 gauge grey nylon liner Smooth finish black NBR palm coating with PVC dotting Available sizes: 7 - 11











N35NBA

Seamless nylon nitrile gloves 15 gauge grey nylon liner Smooth finish black NBR palm coating Available sizes: 7 - 11











N35NBD

Seamless nylon nitrile gloves 15 gauge grey nylon liner Foamy finish black NBR palm coating Available sizes: 7 - 11











N35NBG

Seamless nylon nitrile gloves 15 gauge grey nylon liner Sandy finish black NBR palm coating Available sizes: 7 - 11







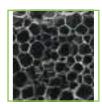


FOAMY NITRILE GLOVES



Material Handling • Repairs & Maintenance • Logistics • Manufacturing • Electronics





Foamy flex finished palm under microscope



Spandex blended liner for flexibility



Aesthetically fused binding

M35NBV

Soft & Comfortable
High dexterity
Non glossy
Non sticky
Excellent grip
Uniform foam distribution
No bubble brust pore















Logistics • Material Handling • Manufacturing • Repairs & Maintenance



W43NBG

Seamless polyester winter nitrile gloves 13 gauge blue polyester liner shell with acrylic lining Sandy finish black NBR palm coating

Available sizes: 7 - 10











EN388

EN388

4242X



W63NAG

Seamless polyester winter nitrile gloves 13 gauge hi-vis green polyester liner shell with acrylic lining Sandy finish black NBR palm coating Available sizes: 7 - 10











W83NBG

Seamless polyester winter nitrile gloves 13 gauge orange polyester liner shell with acrylic lining Sandy finish black NBR palm coating Available sizes: 7 - 10











W33NRG

Seamless polyester winter nitrile gloves 13 gauge grey polyester liner shell with acrylic lining Sandy finish black NBR palm coating Available sizes: 7 - 10











CUT RESISTANT NITRILE GLOVES



Automobile • Glass & Ceramic • Logistics • Material Handling • Heavy Engineering • Manufacturing





Polyester plated cut resistant liner



Sandy finished palm surface



Sandy finished palm surface

L83NBG

Level 5 cut resistant seamless nitrile gloves 13 gauge orange seamless liner UHWMPE & glass fibre blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10

















CUT RESISTANT NITRILE GLOVES



Automobile • Glass & Ceramic • Logistics • Material Handling



H33NBG

Level 5 cut resistant seamless nitrile gloves 13 gauge grey seamless liner UHWMPE & glass fibre blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10















F33NBG

Level 3 cut resistant seamless nitrile gloves 13 gauge grey seamless liner UHWMPE blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10















E33NBG

Level E cut resistant seamless nitrile gloves 13 gauge grey seamless liner UHWMPE & steel yarn blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10















G63NBG

Level 5 cut resistant seamless nitrile gloves 13 gauge Hi-Vis green seamless liner UHWMPE & glass fibre blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10















IMPACT RESISTANT NITRILE GLOVES



Construction • Heavy Engineering • Metallurgy • Manufacturing





PROTECT® patch



Velcro adjusted cuff



Sandy finished palm surface

LR3TDL

Impact shielded level 5 cut resistant nitrile gloves 13 gauge yellow seamless liner Flexible m-KARPALS PROTECT® patch back UHWMPE & glass fiber blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10













CUT RESISTANT NITRILE GLOVES



Automobile • Glass & Ceramic • Logistics • Material Handling • Heavy Engineering • Manufacturing



H33TDL

Impact shielded level 5 cut resistant nitrile gloves 13 gauge Hi-Vis green seamless liner Flexible m-KARPALS PROTECT® patch back UHWMPE & glass fiber blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10















L83TDL

Impact shielded level 5 cut resistant nitrile gloves 13 gauge orange seamless liner Flexible m-KARPALS PROTECT® patch back UHWMPE & glass fiber blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10



G63TDL

Impact shielded level 5 cut resistant nitrile gloves 13 gauge Hi-Vis green seamless liner Flexible m-KARPALS PROTECT® patch back UHWMPE & glass fiber blended liner Sandy finish black NBR palm coating Available sizes: 7 - 10















TMFCB

Impact shielded cut and sewn nitrile gloves Blue coloured medium NBR full coating Flexible m-KARPALS PROTECT® patch back Cotton interlock liner with safety cuff Available sizes: 7 - 10









Dyneema® GLOVES



Automobile • Glass & Ceramic • Logistics • Material Handling • Heavy Engineering • Manufacturing



B33NBG



Azo dyes free gloves

Available sizes 7 - 11













EN388 4X42D



D33NBG

13 gauge high cut resistant seamless nitrile glove Fiber glass blended **Dyneema**® yarn knitted liner NBR coated palm with sandy finish Azo dyes free gloves

Available sizes 7 - 11













EN388

4X42D



D45NBG

15 gauge high cut resistant seamless nitrile glove Fiber glass blended **Dyneema**° yarn knitted liner NBR coated palm with sandy finish

Azo dyes free gloves Available sizes 7 - 11















KNITTED GLOVES



Light Engineering • Hospitality • Logistics • Maintenance



C0705

100% cotton knitted seamless gloves Knitted in 7 gauge machine Coloured elasticated wrist Available sizes: 6-11















P1006

100% polyester knitted seamless gloves Knitted in 13 gauge machine Coloured elasticated wrist Available sizes: 6-11















N1002

100% nylon knitted seamless gloves Knitted in 10 gauge machine Coloured elasticated wrist Available sizes: 6-11















C1002D

100% cotton knitted seamless glove with PVC dots Knitted in 10 gauge machine Coloured elasticated wrist Available sizes: 6-11













KNITTED GLOVES



Light Engineering • Hospitality • Logistics • Maintenance



P1308D

100% dyed polyester knitted seamless with PVC dots Knitted in 13 gauge machine Level 4 tear resistance Available sizes: 6-11













Dyed polyester varn with PVC dots.



N1002D

100% nylon knitted seamless glove with PVC dots Knitted in 10 gauge machine Coloured elasticated wrist Available sizes: 6-11











NC1002D

100% white nylon knitted seamless gloves with cotton plating PVC dots and elasticized wrist Knitted in 10 gauge machine Level 4 tear resistance Available sizes: 6-11











OEKO-TEX® STANDARD 100 20170K0969 AITEX



Blue HPPE knitted seamless gloves Knitted in 15 gauge machine High cut resistance Available sizes: 6-11











PARA-ARAMID GLOVES



Electronics • Food & Beverage • Maintenance • Material Handling



K010

100% para-aramid knitted seamless gloves Knitted in 10 gauge machine Level 4 tear resistance Available sizes: 6-11















Kevlar® with PVC dotting







K010D

100% para-aramid knitted seamless gloves Available in 7, 10 and 13 gauge Heat and cut resistant application Available sizes: 6-11











KCL

100% para-aramid knitted seamless gloves Knitted in 7 gauge machine 100% cotton lining inside Heat application upto 30°C and level 4 tear resistance Available sizes: 6-11















100% para-aramid knitted seamless pile gloves Elasticated para-aramid pile wrist Terry towel finish Available sizes: 6-11









PERFORMANCE UNIT GLOVES



Electronics • Food & Beverage • Maintenance • Material Handling



H33G5

100% TUFF knitted seamless gloves Knitted in 13 gauge machine Excellent comfort and dexterity Available sizes: 6-11











F33S5

100% TUFFTECH knitted seamless gloves Knitted in 13 gauge machine Excellent cut resistant Available sizes: 6-11











P153S

Grey 100% polyester knitted seamless gloves Knitted in 15 gauge machine Anti slip finish on palm to enhance grip Available sizes: 6-11



Anti slip surface











P151A

White 100% polyester knitted seamless gloves Knitted in 15 gauge machine Thumb, index and middle finger tip has carbon fiber for electrical conductivity Available sizes: 6-11











KNITTED PATCH GLOVES



Automobile • Logistics • Maintenance • Material Handling



FL010

Cut reistant blended knitted seamless gloves Split leather palm reinforcement UHWMPE & elastane fibre blended yarn Knitted in 10 gauge machine Coloured overlock binding Available sizes: 7-10











HL010

Cut reistant blended knitted seamless gloves Split leather palm reinforcement UHWMPE & glass fibre blended yarn Knitted in 10 gauge machine Coloured overlock binding Available sizes: 7-10











KL010

100% para-aramid knitted seamless gloves Split leather palm reinforcement Knitted in 10 gauge machine Coloured overlock binding Available sizes: 7-10











Cut reistant blended knitted seamless gloves Split leather palm reinforcement Para-aramid & polyamide fibre blended yarn Knitted in 10 gauge machine Coloured overlock binding Available sizes: 7-10











ARM SLEEVES



Automobile • Logistics • Maintenance • Material Handling



KARMSLV

100% para-aramid knitted arm sleeves Sleeves with thumb hole Execptional heat resistance Level 4 tear resistance 16" in length

















ARMOREX

High blade cut resistant seamless arm sleeve UHWMPE and glass blended fiber Double velcro adjustable closure 17.5" in length













100% polyester seamless arm sleeve Knitted in 13 gauge machine Open elbow for flexibility 17.5" in length













Construction • Iron & Steel • Logisitcs • Manufacturing



D232

4 tips natural grain leather driver gloves Wing thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11













D332

4 tips yellow grain leather driver gloves Wing thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11













D333

4 tips yellow grain leather driver gloves Straight thumb and elasticised back Self helm binding at the end of the cuff Available sizes: 7-11













D434

4 tips beige grain leather driver gloves Keystone thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11











Light Engineering • Hospitality • Logistics • Maintenance



D662

Grain & split combined natural leather driver gloves Wing thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11













D762

Grain & split combined yellow leather driver gloves Wing thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11











D204

Natural grain leather driver gloves Wing thumb Elasticated rib with leather pulse protection Available sizes: 7-11











D 436

4 tips beige grain leather driver gloves Wing thumb and fully adjustable leather fastener tape Coloured binding tape at the end of the cuff Available sizes: 7-11











Light Engineering • Hospitality • Logistics • Maintenance



D809

Dyed brown grain & split combined leather driver gloves Key stone thumb Elasticated rib with leather pulse protection Available sizes: 7-11











D810

Combined leather driver gloves Beige grain palm and brown split leather back Keystone thumb and elasticized back Coloured binding tape at the end of the cuff Available sizes: 7-11











D591

4 tips natural split leather driver gloves Wing thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11











D120

Combined water and oil repellant leather driver gloves Reverse grain on palm and grain on back Wing thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11











Automobile • Heavy Engineering • Material Handling • Oil & Gas



D116

Reinforced water repellent dyed grain leather driver gloves Blue water repellant leather reinforcement on green leather palm Elasticated rib with leather pulse protection Available sizes: 7-11













D132

4 tips water and oil repellant dyed khaki grain leather driver gloves Wing thumb Elasticated rib with leather pulse protection Available sizes: 7-11











D142

Dyed water and oil repellant green grain leather driver gloves Wing thumb and elasticised back Coloured binding tape at the end of the cuff Available sizes: 7-11













D463

4 tips beige grain leather driver gloves Key stone thumb and elasticised back Hi-vis fabric patch on the back of glove Coloured binding tape at the end of the cuff Available sizes: 7-11











CANADIAN GLOVES



Automobile • Construction • Material Handling • Repair & Maintenance



C231

Natural grain Canadian leather gloves Cotton lining inside and canvas cuff Leather knuckle proctected cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11















C332

Yellow grain Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle proctected red cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11















C232R

Reinforced natural grain Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle proctected yellow stripes cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11















C542

Natural split Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle proctected blue cotton drill fabric back Coloured binding tape stitching at the end of the cuff Available sizes: 7-11













CANADIAN LEATHER GLOVES



Automobile • Logistics • Maintenance • Material Handling



C042

Russet colored dyed split Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle proctected yellow cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11





























C853

Reinforced natural split Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle protected cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11

















C864

Reinforced natural split Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle protected grey stripes cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11











CANADIAN LEATHER GLOVES



Automobile • Construction • Material Handling • Repair & Maintenance



C251

Natural combined Canadian leather gloves Palm in natural grain leather and thumb back knuckle in split leather Cotton lining inside Cotton drill fabric back and canvas cuff

Coloured binding tape stitched at the end of the cuff Available sizes: 7-11













C966

Natural grain Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle protected hi-vis green cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11















C242

Natural grain Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle protected hi-vis orange cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11















C265

Natural grain Canadian leather gloves Cotton lining inside and rubberised cuff Leather knuckle protected blue stripes cotton drill fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11











WINTER LEATHER GLOVES



Automobile • Construction • Heavy Engineering • Logistics



E223

Natural grain winter Driver gloves Acrylic fleece lining inside Winged thumb and elasticised back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11













E324

Yellow grain winter Driver gloves Fur lining inside Winged thumb and elasticised back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11













E332

Yellow grain winter Canadian gloves Fur lining inside and rubberised cuff Red cotton fabric drill back with leather knuckle protection Coloured binding tape stitched at the end of the cuff Available sizes: 7-11













E755

Natural grain winter Canadian gloves Polyfill lining inside Reinforced finger tips and back Knitted wrist Available sizes: 7-11













Construction • Heavy Engineering • Manufacturing • Material Handling





Reflective finger tip



Velcro adjusted



SIMUM metacarpal patch

T534

Metacarpal protected natural grain leather mechanical gloves Synthetic yellow fabric back Velcro adjustable knitted cuff Hi-vis tape stitched on finger tips Grey flexible "SIMUM" metacarpal patch for seamless performance Available sizes: 7-11













Construction • Heavy Engineering • Manufacturing • Material Handling



TM564

Metacarpal protected beige grain leather mechanical gloves Velcro adjustable knitted cuff Flexible "SIMUM" metacarpal patch stitched on back

Hi-vis tape stitched on finger tips

Available sizes: 7-11













TM554

Metacarpal protected yellow grain leather mechanical gloves Velcro adjustable knitted cuff

Hi-vis tape stitched on finger tips

Flexible "SIMUM" metacarpal patch stitched on back

Available sizes: 7-11













TM274

Metacarpal protected natural grain leather mechanical gloves Velcro adjustable knitted cuff

Natural grain palm with black spandex fabric back Flexible "SIMUM" metacarpal patch stitched on back Available sizes: 7-11













TM284

Metacarpal protected natural grain leather mechanical gloves Velcro adjustable knitted cuff

Natural grain palm with black spandex fabric back Flexible "SIMUM" metacarpal patch stitched on back Available sizes: 7-11







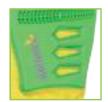






Construction • Heavy Engineering • Manufacturing • Material Handling





Flexible DUDHWA®



Segmented finger for adjustability



Breathable fabric back

TM294

Metacarpal protected high cut resistant leather driver gloves Glass fiber blended para-aramid lining inside Green flexible "DUDHWA®" impact resistant patch on back Natural grain palm and elasticized back Available sizes: 7-11















Construction • Heavy Engineering • Manufacturing • Material Handling



BE2258

Metacarpal protected high cut resistant leather driver gloves Glass fiber blended para-aramid lining inside Blue flexible "SIMUM" metacarpal for seamless performance Natural grain and elasticized back Available sizes: 7-11













BE2208

Metacarpal protected natural grain leather driver gloves Yellow flexible "SIMUM" metacarpal for seamless performance Natural grain and elasticized back Available sizes: 7-11















BE2258 H

Metacarpal protected high cut resistant leather gloves Glass fiber blended para-aramid fabric lined palm Blue flexible "DUDHWA" metacarpal for seamless performance Breathable fabric and elasticized back Available sizes: 7-11















DE2398

Metacarpal protected high cut resistant leather gloves Glass fiber blended para-aramid fabric lined palm Red flexible "DUDHWA" metacarpal for seamless performance Breathable fabric and elasticized back

Available sizes: 7-11











MECHANICAL GLOVES



Construction • Heavy Engineering • Manufacturing • Material Handling



M464

Natural grain leather glove in mechanical style Synthetic fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11











M254

Natural grain leather glove in mechanical style Spandex fabric back Velcro adjustable cuff Available sizes: 7-11











M354

Yellow grain leather glove in mechanical style Spandex fabric back Coloured binding tape stitched at the end of the cuff Available sizes: 7-11











M654

Natural grain leather glove in mechanical style Red coloured cotton fabric back Velcro adjustable cuff Available sizes: 7-11













Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



F224

Grain leather welder glove with split cuff Natural split cuff 15 cm in length Excellent tear resistant Good dexterity Available sizes: 8-11

















F214

Goat grain leather welder glove with split cuff Natural split cuff 15 cm in length Ideal for MIG and TIG application Available sizes: 8-11

















F234

Natural combined welder gloves Grain leather palm with split back Natural split cuff 15 cm in length Available sizes: 8-11



















Natural grain leather welder gloves External reinforcement on palm and thumb Band of grain leather on split cuff Natural split cuff 8 cm in length Available sizes: 8-11



















Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



M-F524

Natrual split leather welder gloves Split leather cuff 15 cm in length Excellent tear resistance Available Sizes: 8-11











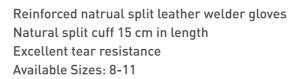








F422DP



















Natural split leather welder gloves Split cuff 7 cm in length Excellent tear resistance Available Sizes: 8-11















F522DP

Reinforced natural split leather welder gloves Split cuff 7 cm in length Excellent tear resistance Available Sizes: 8-11



















Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



MF437

Dyed split leather welder gloves Back and thumb made from single piece leather Cotton fleece lining inside Available Sizes: 8-11



















F637

Dyed split leather welder gloves Back and thumb made from single piece leather Reinforcement on the thumb Available Sizes: 8-11













KWS15

100% para aramid mitten style leather gloves Fully insulated for high temparature resistance Soft split natural leather cuff Available Sizes: 8-11













H468

Water repellant full grain leather welder gloves Sewn with para-aramid thread Aluminised polyester insert 20 cm split leather cuff with adjustable velcro Contact heat resistivity is upto 500°C for >15 sec Available Sizes: 8-11













Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



KD4377A

Heat and flame resistant welder glove 600 GSM Woven Para aramid glove 15 cm natural split leather cuff, Cotton lining inside Contact heat resistivity is upto 200 degreeC (for 15 sec)













KW4377A

Heat and flame resistant welder glove 600 GSM woven Para aramid glove 15 cm para aramid cuff, Cotton lining inside Contact heat resistivity is upto 200 degreeC (for 15 sec)













KW1277A

Heat and flame resistant welder glove 600 GSM woven Para aramid glove with natural split leather back 15 cn natural split leather cuff Cotton lining inside Contact heat resistivity is upto 200 degreeC (for 15 sec)













Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



KD4377B

Heat and flame resistant welder glove 480 GSM woven Para aramid glove With 15 cm natural split leather cuff, Cotton lining inside Contact heat resistivity is upto 200 degreeC (for 15 sec)













KW4377B

Heat and flame resistant welder glove 480 GSM woven Para aramid glove 15 cm para aramid cuff, Cotton lining inside Contact heat resistivity is upto 200 degreeC (for 15 sec)













KW1277B

Heat and flame resistant welder glove 480 GSM woven Para aramid glove with natural split leather back 15 cm natural split leather cuff Cotton lining inside Contact heat resistivity is upto 200 degreeC (for 15 sec)













Automobile • Iron & Steel • Metullargy • Repairs & Maintenance





Reinforced palm



Elongated cuff

F834























Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



H224K

Natural grain leather welder gloves Knitted para-aramid and cotton plated liner Sewn with para-aramid thread Hi-vis fabric trimming on cuff Available sizes: 8-11













H044K

Yellow dyed split leather welder gloves Seamless para-aramid lining on the palm Sewn with para-aramid thread Available sizes: 8-11













F290D

Natural grain leather welder gloves External reinforcement in palm and thumb Full fleece palm lining 9 cm canvas cuff and back Available sizes: 8-11













F667

Dyed blue 100% split leather welder gloves Back and cuff in single piece leather Yellow split leather plam and knuckle protection Lined with cotton canvas Available sizes: 8-11













Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



F687

Dyed red 100% split leather welder gloves Back and cuff in single piece leather Yellow split leather plam and knuckle protection Lined with cotton canvas Available sizes: 8-11













F962

Natural split leather mittens Lined with cotton canvas Reinforced keystone thumb Available sizes: 8-11











HAMK

Fire and heat resistant welder gloves Aluminized preox fabric used at back 100% wool lining Sewn with para-aramid thread Lining in 100% wool Available sizes: 8-11











H544K

Fire and heat resistant welder gloves 100% wool lining Sewn with para-aramid thread Heat resistant upto 250°C Available sizes: 8-11









HEAT RESISTANT WELDER GLOVES



Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



KPZ15

2 finger leather mittens with para-aramid palm Heat resistant russet split in 15cm cuff Glove interlined with thick acrylic knit fabric Sewn with para-aramid thread Available sizes: 8-11











KWL15

Welder leather glove with para-aramid palm Self extinguishing para-aramid fibre Heat resistant russet split 15 cm cuff Gloves interlined with thick acrylic knit fabric Sewn with para-aramid thread Available sizes: 8-11











KCL15

Welder leather glove with seamless para-aramid palm Heat resistant russet split 15 cm cuff Gloves interlined with cotton lining Sewn with para-aramid thread Available sizes: 8-11











H515A

Fire and heat resistant welder gloves Alumunised preox fabric used at back and thumb 15 cm split cuff in length Sewn with para-aramid thread Palm lined with fleecy fabric and canvas at the back of the cuff Available sizes: 8-11









WELDER GARMENT

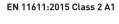


Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



Hood

100% natural split leather welder hood Front velcro closure Covers head and neck Free size also available in grain leather









Jacket

Leather welder jacket in 100% natural grain Sewn with para-aramid thread Velcro fastening on the front placket Available in different leather and fabric combination Available sizes: S-XXL







Trouser

Leather welder trouser in 100% natural grain Sewn with para-aramid thread Metallic stud button for fly closure Available in different leather and fabric combination Available sizes: S-XXL





EN 11611:2015 Class 2 A1

EN 11611:2015 Class 2 A1

LEATHER ACCESSORIES



Automobile • Iron & Steel • Metullargy • Repairs & Maintenance



Sleeves

EN 11611:2015 Class 2 A1

EN 11611:2015 Class 2 A1

Leather arm sleeves in 100% natural grain Sewn with para-aramid thread Free size also available in split leather







Leg Guards

Leather leg guards in 100% natural grain Velcro fastening to ensure proper grip Free size also available in split leather







Tool Bag

Leather welder tool bag in 100% natural grain Multi pockets tool bag for manifold applications Available in split leather and different design







Leather Apron

Leather welder apron in 100% natural grain Leather belts and string for comfortable wear Available in split leather, different designs and fabric composition

Available sizes: S-XXL







DISPOSABLE COVERALL



Healthcare • Pharmaceutical • Bio technology • Chemical





JD7AY

Type 4, 5 & 6 Cat III

Light weight 60 GSM Disposable coverall for infectious disease control Excellent barrier against dry particles and certain limited liquid chemical splash Coverall made of Breathable water resistant SSMMS fabric Elastic cuffs, waist and ankles for a better fit and freedom of movement Colour: White











Seam sealed Light weight 80 GSM Disposable coverall for infectious disease control Excellent barrier against dry particles and certain limited liquid chemical splash Laminated breathable material Elastic cuffs, waist and ankles for a better fit and freedom of movement Colour: White











JB8GZ

Laminated disposable Shoe covers to protect from bio hazard risk, and harmful particles 80 GSM Laminated disposable Shoe Covers 8 mm elastic closure Colour - white





DISPOSABLE COVERALL



Healthcare • Pharmaceutical • Bio technology • Chemical



LA2EZ

Disposable gown to protect from biohazardous risks e.g. liquid and particles Non-laminated 40 GSM, non-woven fabric Strap fastener system closure Colour - Hospital blue









MP29G

Reuseable gown to protect from bio hazardous risks e.g. liquid and particles Coated 90 GSM, woven poltester fabric with PU coating Strap fastener system closure Colour Navy Blue





LIGHT WORKWEAR



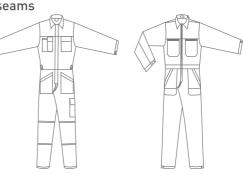
Agriculture • Automobile • Chemical • Logistics



COLOGNE

100% cotton - 240GSM
Work coverall with waist belt and regular sleeves
Front opening with spiral zipper concealed with flap
Multiutility pockets and bartack reinforcements with shell fabric at knee
All edges serged with overlock seams





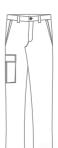


MASSY

100% cotton - 240GSM Trousers with elasticised waist band and belt loops Utility pockets and zipper at fly Bartack reinforcement with shell fabric at knee Raw edges overlocked and Eyelet button hole





















Navy Blue Royal Blue Bottle Green
Available size: XS - XXL

Grey

Red

Black

LIGHT WORKWEAR



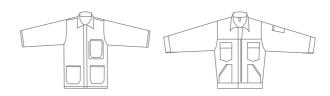
Agriculture • Automobile • Chemical • Logistics



BASEL

100% cotton - 240GSM Jacket without waist band, cuff and regular collar Mobile pocket provided additionally Other utility pockets on the jacket Flaps secured with snaps, edges overlocked Pockets sitched with Double needle lock stitch. Bar tacks for special reinforcment.





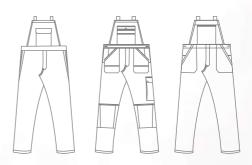


SOFIA

100% cotton - 240GSM Bib trousers with regular braces and zipper in fly Single pocket on bib with flap secured with snaps Side openings with jeans button closure Utility pockets provided. All raw edges overlocked with 5 thread Joins attached with 2 needle lock stitch Bar tacks on seam edges for reinforcements

















Available size: XS - XXL

Red

Black



Automobile • Construction • Manufacturing • Mining

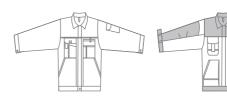


KIEV

100% cotton - 260GSM Heavy duty Bi coloured Jacket. **Multiuitlity Pockets** Front Closure with Zipper and covered by flap, snap buttons on pockets Knitted cuff and part elasticated waist









GRANADA

100% cotton - 260GSM Bib trousers in heavy twill fabric; Stylised with contrast color combination Multi pockets Fly closure with zipper; Bar tacks for extra reinforcement Knee guards with shell fabric Utility pockets Elasticated brace for comfort and ease of movement



















Navy Blue Royal Blue Bottle Green Available size: XS - XXL

Grey

Black



Automobile • Construction • Manufacturing • Mining

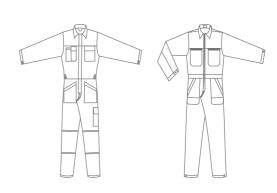


BILBAO

100% cotton - 260GSM Coverall in heavy twill fabric Front closure with 2 way zipper and utility pockets Designed for exposure in high abrasion work environment Bar tacks for extra reinforcements







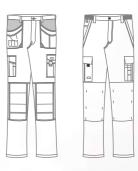


HAMBURG

100% cotton - 260GSM Heavy duty trousers with multi-utility pockets Cordura(r) knee protection reinforcement and fly zipper Opening from top and secured with velcro Special darts to hold the knee guard in place Cordura patches at the bottom hem of leg as well Presence of D ring and Nylon webbing tapes to facilitate multi storage Double loops in the waist belt and eye let button hole



















Navy Blue Royal Blue Bottle Green Available size: XS - XXL



Automobile • Construction • Manufacturing • Mining



COSTA

100% cotton - 260GSM
Vest in heavy duty fabric
Multi utility pockets
Zipper closure in front
comfort fit with wider armhole
Bar tack for extra reinforcement







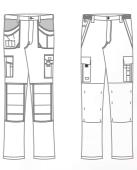


BERLIN

100% cotton - 260GSM Trousers with heavy duty fabric Stretch fabric at back seat for extra ease of movment Multi utility pockets Waist belt with elasticaiton and belt loops



















Black



Automobile • Construction • Manufacturing • Mining



HAMILTON

100% cotton - 260GSM
Bi-coloured heavy duty jacket.
Hi-vis reflective tape of 2" in double rows
present on chest and sleeves in horizontal fashion
Front closure zip concealed with flap and snap buttons
Turtle neck collar. Two welt chest pockets covered with flaps
Two down pockets with lateral openings
Mobile and pen pocket on sleeve
Sleeve cuff and waist belt adjusted with snap button



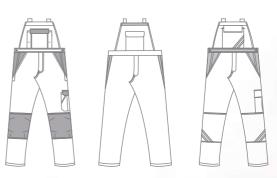




BENDIGO

100% cotton - 260GSM
Bib Trousers in Bi-coloured combination
50 mm reflectors on leg in 2 rows
Multiutility Pockets and One phone Pocket
Gallies in Shell fabric with Plastic buttons
Waist Adjustments and Bartacks for reinforcements

















Navy Blue Royal Blue Bottle Green Grey

Available size: XS - XXL

Black

HOSPITALITY WORKWEAR



Food & Beverage • Hospitality • Housekeeping • Retail



BIEL

65/35% polycotton - 210GSM Bib apron in polycotton. Contrast flaps and piping and straps Welt pocket on the front bib area and closed with snap button Neck strap adjusted with snap button for length One welt pocket on the right side with lateral entry Tied at the back with snap button and adjustable for width









OSLO

65/35% polycotton - 210GSM Full sleeve white tunic Collars and Closure with snap buttons







Navy Blue

Red

Available size: 100X90cm free size











Navy Blue Royal Blue Bottle Green Available size: XS - XXL

HOSPITALITY WORKWEAR



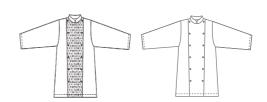
Food & Beverage • Hospitality • Housekeeping • Retail



GENEVA

100% cotton - 270GSM Satin Chef's jacket in satin fabric Double breasted with det hable popper buttons Mandarin collar and French cuff







ZURICH

65/35% polycotton - 210GSM Chef's trousers in hound's tooth check fabric Regular waist belt with belt loops and elasticated back Two side pockets with diagonal opening and one back patch pocket













Pepita Burgundy

Available size: XS - XXL

HEALTHCARE WORKWEAR



Biotechnology • Chemical • Healthcare • Pharmaceutical



NANCY

65/35% polycotton - 210GSM White coat with snap fastening in front Full Sleeve and back slit Multi pockets











ATHENS

65/35% polycotton - 210GSM Ladies Tunic with short sleeve with V neck Front closure with concealed snap buttons and top button visible Stylised contrast piping along princess seam for smart look

















Navy Blue White

Hospital Green

Available size: XS - XXL

HEALTHCARE WORKWEAR



Biotechnology • Chemical • Healthcare • Pharmaceutical



EDINBURGH

65/35% polycotton - 190GSM Nurse's dress with long sleeve and front closur with button Double breasted with overlapping feature for ease of movement







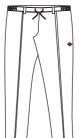


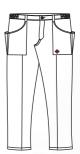


TRAUN

65/35% polycotton - 210GSM Medical unisex trousers with elasticated waist and draw cord Bottom hems of trousers with snap buttons













Green





Hospital Hospital Blue

Available size: XS - XXL



Chemical • Iron & Steel • Metallurgy • Petrochemical





FR reflective Tape



Chest pocket with zip closure



1.5" width NFPA certified FR elastic





MINSK

88/12% cotton nylon - 240GSM
Flame retardant summer coverall
Two flap covered patch pockets on chest
Two cross pockets on hip (with side entry)
Two back patch pockets & one tool pocket at right leg
Snap buttons and FR zipper closure
FR reflective tape on arms and legs









Chemical • Iron & Steel • Metallurgy • Petrochemical



RIGA





88/12% cotton nylon - 190GSM Flame retardant summer shirt FR Button closure system Two front chest pockets and snap buttons closure







BUCHAREST

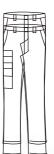
88/12% cotton nylon - 190GSM Flame retardant summer trouser Front snap button and metal FR zipper closure system Two back pockets













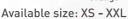








Grey







Chemical • Iron & Steel • Metallurgy • Petrochemical



ZAGREB





OEKO-TEX ®
CONFIDENCE IN TEXTILES
STANDARD 100
20170K0969 AITEX

Shell: 88/12% cotton nylon - 240GSM Insulation: 75/25% wool modacrylic Lining: 100% cotton - 180GSM Insulated flame retardant jacket

Two slant chest pockets closed with hidden FR zipper

Front FR zipper closure covered with flaps

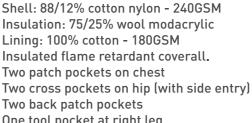
FR reflective tape on arms

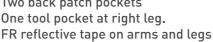


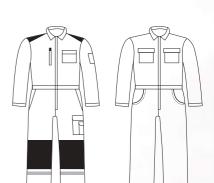




WARSAW



















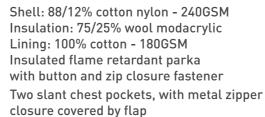
OEKO-TEX®

STANDARD 100

Chemical • Iron & Steel • Metallurgy • Petrochemical



LISBON



Two hip pockets with hidden snap button fastener covered by flap & a patch pocket at left sleeve FR Reflective tape is used around the sleeve











ISTANBUL

Shell: 88/12% cotton nylon - 240GSM
Insulation: 75/25% wool modacrylic
Lining: 100% cotton - 180GSM
Insulated flame retardant Bib trouser
Button with zip closure system
One small chest pocket at the left side on bib
Elastic braces with buckles at front with adjuster







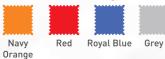




FR Reflective tape on legs







FLAME RETARDANT - EN ISO



Chemical • Iron & Steel • Metallurgy • Petrochemical





Zebra reflective tape 50mm width



Zip and velcro adjusted closure system



Side pocket with velcro closure

PARIS

100% cotton - 240 GSM
Bi-coloured flame retardant coverall
Two front pockets covered with flaps
Front closure by brass FR zipper covered with flap
FR zebra reflective striping of 50 mm across chest, arms, legs & vertical row on shoulders
Sleeves adjusted by FR velcro





Standard colour range



Bi coloured Orange & Navy Blue Available size: XS - XXL **EN ISO 11611**



EN ISO 16112







FLAME RETARDANT - EN ISO



Chemical • Iron & Steel • Metallurgy • Petrochemical



HELSINKI

100% cotton - 190 GSM Khaki colour flame reatardant shirt Two front pockets covered with flaps; front closure by metal snap button Sleeves adjusted by FR velcro





















COPENHAGEN

Class 1 A1 100% cotton - 190 GSM Khaki colour flame reatardant trouser All pockets covered with flaps; front closure by metal snap button and FR zipper



EN ISO 16112



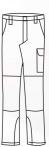
A1, B1, C1













FLAME RETARDANT - EN ISO



Chemical • Iron & Steel • Metallurgy • Petrochemical





50mm width reflective tape



Knee pocket



Snap button closure

FLORENCE

60/40% cotton-poly - 300GSM

Orange hi vis coverall with reflective tape

Cat II. reflective tape of 50 mm across vertically on chest,

Horizontally on arms and legs

Twill weave construction

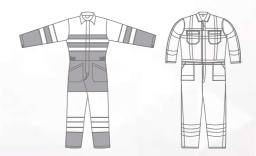


Standard colour range





Orange Yellow Lemon Green Available size: XS - XXL



HIGH VISIBILITY WORKWEAR



Aerospace & Aviation • Construction • Logistics • Oil & Gas



VIENNA

60/40% cotton poly - 300GSM
Bi colored HI Vis Jacket with Front Closure by
Zipper and flaps closed with Velcro
Welt Pockets on the Front with zipper closure
Adjustable waistbelt and Turtle collar
Action back Pleats and Bartack for Reinforcements
Twill weave construction





BRUSSELS

60/40% cotton poly - 300GSM
Bi-colored hi-vis trousers with double band
of 50 mm reflective tape
Fabrics conform to EN471 norm
Waist with elastics on either side
Two side pockets and one thaigh pocket with flap
One patch pocket at back
Fly with zipper
Seams with overlock and 2 needle lockstitch
Twill weave construction













Standard colour range











HIGH VISIBILITY WORKWEAR



Aerospace & Aviation • Construction • Logistics • Oil & Gas



STOLKHOLM

60/40% cotton poly - 300GSM Safety tool vest in hi-vis fabric Inner lining with mesh fabric Plackets with visilon zipper

Two patch pockets with lateral entry and on the patch pockets presence of additional mobile pocket on the right and a bigger pocket on the left

Slots are safety harness entries
Reflective stripes of 50 mm on the front along the front placket and horizontally at the botton hem
Criscrossed over centre back



Available size: XS - XXL







ROME

60/40% cotton poly - 300GSM Trousers in hi-vis fabric of poly cotton blend 2" reflective stripes in double rows horizontally across the leg above the bottom hem

Also a single row of reflective striping along the out seam from waist till bottom hem $\,$

Fly closure with zipper and waist belt secured with plastic button Presence of thigh pocket

Two side pockets and one back patch pocket Elasticized waist





Hi-Vis Orange Available size: XS - XXL

HIGH VISIBILITY WORKWEAR



Aerospace & Aviation • Construction • Logistics • Oil & Gas

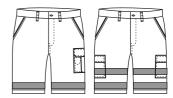


AVIGNON

60/40% cotton poly - 300GSM
Bi-colored shorts in hi-vis fabric
Wait gripper inside waistbelt
Cordura lined hanging pockets, regular pockets, tool pocket in knee
Thivk webbign tape for holding tools
Pockets with extra room
Double row of reflectors
Flaps closed with Velcro







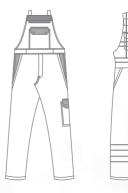


AMSTERDAM

60/40% cotton poly - 300GSM

Bib trousers in hi-vis fabric with 2" reflective striping placed over the garment in compliance with CAT III requirements Multi utitlity pockets front closure with zipper

Bar tacks for reinforcement









Orange Red

Available size: XS - XXL

MULTI NORM WORKWEAR



Automobile • Heavy Engineering • Metallurgy • Petrochemical





Reflective tape for better visibility



Multinorm protection



Velcro adjusted zip closure

PORTO

60/40% cotton poly - 300GSM Hi vis Flame Retardent Lned 3 layer coverall Polyfill quilted FR Padding inside All FR trims Multipocket 50 mm reflectors on legs Arms and body





Standard colour range



Orange

MULTI NORM WORKWEAR



Automobile • Heavy Engineering • Metallurgy • Petrochemical



NUREMBERG

60/40% cotton poly - 300GSM

Jacket made to comply with anti-flame and antistatic performance

All hidden pockets and covered trims

Openings doubly secured with zipper and flaps

Turtle neck collar and extended back hem





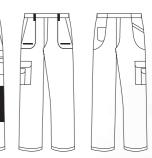




SALZBURG

60/40% cotton poly - 350GSM Trousers made to comply with anti-flame and antistatic performance All Hidden multi pockets and covered trims





Standard colour range



WINTER WORKWEAR



Aviation • Construction • Logistics • Petrochecmical



DARWIN

Shell: 50/50% Beaver® polyester - 260GSM

Lining: 100% cotton - 180GSM

Insulation: 100% Polyfil polyester - 200GSM

Three-layered multi-colour winter jacket with detachable liner

Fleece lined collar

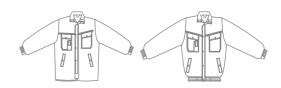
All pockets with vertical opening

All pockets closed with injection moulded zipper and

concealed with flap

Knitted cuff for snug fit







DUBLIN

Shell: 50/50% Beaver® polyester - 260GSM

Lining: 100% cotton - 180GSM

Insulation: 100% Polyfil polyester - 200GSM Fur lined coverall upto torso and bottom quilted Zipper closure and additional storm flap on zipper

Two chest pockets, two side pockets, one back pocket one thigh pocket, one sleeve pocket with pen slot

All pockets with flap and button closure,

elasticated waist Reflective piping around yoke







Navy Blue Bottle Red Green

Royal Blue Black Grey

Available size: XS - XXL

WINTER WORKWEAR



Aviation • Construction • Logistics • Petrochecmical



PRAGUE

Shell: 50/50% Beaver® polyester - 260GSM

Lining: 100% cotton - 180GSM

Insulation: 100% Polyfil polyester - 200GSM

Winter insulated parka with 3 layers and detachable hood

Two chest pocket and two bottom pockets
All pokcets secured with snap fastners
Front closure with zipper and additional
4 inch flap secured with buttons







BUNBURY

Shell: 50/50% Beaver® polyester - 260GSM

Lining: 100% cotton - 180GSM

Insulation: 100% Polyfil polyester - 200GSM

Bi-color bodywarmer with quilting Visilon zipper with storm flap Metal buttons with plastic cap Two chest pockets with additonal mobile pocket on right chest Bottom pocket entry angled to allow easy entry of palm into pocket













Available size: XS - XXL

DENIM WORKWEAR



Hospitality • Logistics • Paints • Tourism



TALLINN

100% cotton - 10 Oz

Blue denim shirt

One chest pocket and two side pockets at front
Front button closure and flap cover







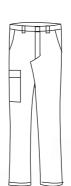


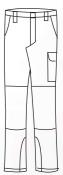
MADRID

100% cotton - 14 Oz Blue denim trouser Two front and two back pockets Brass zipper closure with semi auto lock slider









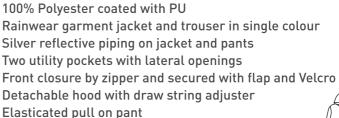
RAINWEAR



Hospitality • Logistics • Aviation • Tourism



STRATUS



Leg bottom width adjustable with velcro







EN343

3 2



NIMBUS

Pant and jacket set
Front closure by zipper and secured with flap and Velcro
Detachable hood with draw string adjuster
Elasticated pull on pant
Leg bottom width adjustable with Velcro
Flaunt side pocket
Waterproof seamsealing









Standard colour range





Navy Blue Grey







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FREDDIE G23

Aesthetically designed Mid ankle double density safety shoe Blue & black stlylish knitted upper with reflective design Double density PU sole with TPU shock absorber Composite toe cap

Available sizes: 36-47













FREDDIE K23

Aesthetically designed Mid ankle double density safety shoe Red & black stlylish knitted upper with reflective design Double density PU sole with TPU shock absorber Composite toe cap

Available sizes: 36-47













FREDDIE J23

Aesthetically designed Mid ankle double density safety shoe Green & black stlylish knitted upper with reflective design Double density PU sole with TPU shock absorber

Composite toe cap

Available sizes: 36-47













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FREDDIE H23

Aesthetically designed Mid ankle double density safety shoe Black & Grey stlylish knitted upper with reflective design Double density PU sole with TPU shock absorber Composite toe cap

Available sizes: 36-47













FREDDIE G22

Aesthetically designed Mid ankle double density safety shoe Blue & black stlylish knitted upper

Double density PU sole with TPU shock absorber

Composite toe cap

Available sizes: 36-47













FREDDIE K22

Aesthetically designed Mid ankle double density safety shoe Red & black stlylish knitted upper

Double density PU sole with TPU shock absorber

Composite toe cap

Available sizes: 36-47













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FREDDIE J22

Aesthetically designed Mid ankle double density safety shoe Green & black stlylish knitted upper Double density PU sole with TPU shock absorber Composite toe cap Available sizes: 36-47













FREDDIE H22

Aesthetically designed Mid ankle double density safety shoe Black & Grey stlylish knitted upper Double density PU sole with TPU shock absorber Composite toe cap Available sizes: 36-47













FREDDIE G21

Aesthetically designed Mid ankle double density safety shoe Blue & black stlylish knitted upper Double density PU sole with TPU shock absorber Composite toe cap Available sizes: 36-47













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FREDDIE J21

Aesthetically designed Mid ankle double density safety shoe Green & black stlylish knitted upper Double density PU sole with TPU shock absorber Composite toe cap Available sizes: 36-47













FREDDIE K21

Aesthetically designed Mid ankle double density safety shoe Red & black stlylish knitted upper Double density PU sole with TPU shock absorber Composite toe cap Available sizes: 36-47













FREDDIE H21

Aesthetically designed Mid ankle double density safety shoe Black & Grey stlylish knitted upper Double density PU sole with TPU shock absorber Composite toe cap Available sizes: 36-47













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Breathable knitted upper



Shock absorbent Oliver mould



Direct injected
Aesthetically designed
bicoloured PU sole

FREDDIE J02

Low ankle double density safety shoe Green & black stylish knitted upper Double density PU sole Composite toe cap Available sizes: 36-47













Tear strength is 2.8x times



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FREDDIE J01

Low ankle double density safety shoe Green with black blended knitted upper Double density PU sole Composite toe cap Available sizes: 36-47













FREDDIE K01

Low ankle double density safety shoe Orange with black blended knitted upper Double density PU sole Composite toe cap Available sizes: 36-47













FREDDIE G03

Low ankle double density safety shoe Blue with black stlylish knitted upper Double density PU sole Composite toe cap

Available sizes: 36-47













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FREDDIE H02

Low ankle double density safety shoe Grey with black knitted upper Double density PU sole Composite toe cap Available sizes: 36-47













FREDDIE K02

Low ankle double density safety shoe Orange with black stlylish knitted upper Double density PU sole Composite toe cap Available sizes: 36-47













FREDDIE G01

Low ankle double density safety shoe Blue & Black blended stylish knitted upper Double density PU sole Composite toe cap Available sizes: 36-47













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OCELOT

High ankle double density safety shoe Black nubuck & Grey Suede leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47



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MARGAY

Low ankle double density safety shoe Black nubuck and grey suede leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















IRIOMOTE

High ankle double density safety shoe
Black waterproof goat print split leather upper
Double density PU sole
Impact resistant steel toe cap &
penetration resistant steel insert
Available sizes: 36-47

















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IBERIAN

Low ankle double density safety shoe
Black Waterproof Goat print split leather upper
Double density PU sole
Impact resistant steel toe cap &
penetration resistant steel insert
Available sizes: 36-47















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ONTILLA

High ankle double density safety shoe Brown colour nubuck leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47















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GUINA

Low ankle double density safety shoe Brown colour nubuck leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















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SIMBA

High ankle double density safety shoe Black barton print leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















SERVAL

Low ankle double density safety shoe Black goat print leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















TRINIL

High ankle double density safety shoe
Brown barton print grain leather upper
PU mid-sole and rubber out-sole
Impact resistant composite toe cap & para aramid insert
Available sizes: 36-47

















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DINICTIS

Low ankle double density safety shoe Black Goat print leather upper PU mid-sole and rubber out-sole Impact resistant composite toe cap & para aramid insert Available sizes: 36-47

















BREWSTER

Low ankle double density safety shoe Black nubuck leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















DEVON REX

Low ankle double density safety shoe Black wood print leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















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SELKIRK REX

Low ankle double density safety shoe Black barton print leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47









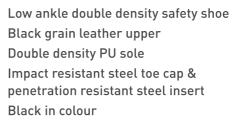






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Available sizes: 36-47

















SERENGETI

High ankle double density safety shoe Tan Nubuck leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















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YORK

Low ankle double density safety shoe Grey suede leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















MANX SUEDE

High ankle double density safety shoe Grey suede leather upper Double density PU sole Imapct resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47















MANX

Low ankle double density safety shoe Black barton print leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47















CE



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RUFUS J01 S2

Brown Microfiber upper
Low ankle double density safety shoe
Mid sole is black outsole colour is grey
200 J Impact resistant steel toe cap
Available sizes: 36-47













RUFUS K01

Black Microfiber upper with green piping Low ankle double density safety shoe Mid sole is black outsole colour is grey 200 J Impact resistant steel toe cap Available sizes: 36-47















RUFUS M01

Upper made of Black microfibre with Suede leather & textile material
Low ankle double density safety shoe
Mid sole is black outsole colour is grey
200 J Impact resistant steel toe cap
Available sizes: 36-47













RUFUS L01 S2

Black Microfiber upper Low ankle double density safety shoe Mid sole is black outsole colour is grey 200 J Impact resistant steel toe cap Available sizes: 36-47















MICROFIBER RANGE



Electronics • Hospitality • Logistics • Pharmaceutical



CYMRIC J01 0B

Black washable microfiber upper Double density PU outsole Plastic toecap Velcto fastening system Available sizes: 36-47



















CYMRIC J02 0B

Black washable microfiber upper Clog design Double density PU outsole Plastic toecap Velcto fastening system Available sizes: 36-47



















CYMRIC J03 S1

Black washable microfiber upper Double density PU outsole Steel toecap Slip on shoe design Available sizes: 36-47















MICROFIBER RANGE



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CYMRIC K01 OB

White washable microfiber upper Clog design Doubl density PU outsole Plastic toecap Velcto fastening system Available sizes: 36-47

















CYMRIC K02 0B

White washable microfiber upper Clog design Double density PU outsole Plastic toecap Velcto fastening system Available sizes: 36-47

















CYMRIC K03 S1

White washable microfiber upper Double density PU outsole Steel toecap Slip on shoe design Available sizes: 36-47















TIGLON RANGE



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LIGER L

Low ankle single density safety shoe Black barton print leather upper Single density PU sole Impact resistant steel toe cap Available sizes: 36-47



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RAGINI

Grey & Orange low ankle single density safety shoe Suede split leather and breathable nylon mesh fabric upper Single density PU sole Impact resistant steel toe cap

Available sizes: 36-47















CIVET

Low ankle single density safety shoe Black barton print leather upper Single density PU sole Impact resistant steel toe cap Available sizes: 36-47















VIVVERA



HATRICK

High ankle single density safety shoe Black corrected grain leather upper Single density PU sole Impact resistant steel toe cap Available sizes: 36-47









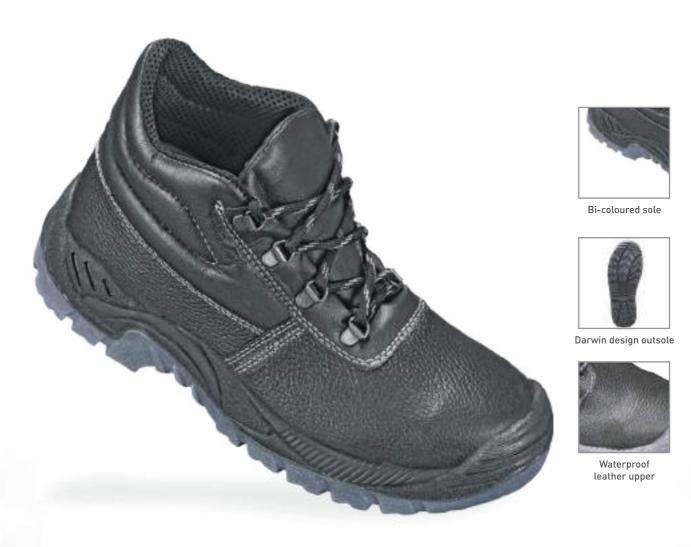




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Construction • Maintenance • Mining • Shipping



FELIX

High ankle double density safety shoe Black waterproof barton print leather upper Double density PU sole Imapct resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47 ((



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MALA

High ankle double density safety shoe Black barton print leather upper Double density PU sole Imapct resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















WALNOT OB

Low ankle double density safety shoe Black goat print leather upper Double density PU sole Imapct resistant thermoplastic toe puff Available sizes: 36-47















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CE



GONZO

Low ankle double density safety shoe
Black barton print waterproof leather upper
Double density PU sole
Impact resistant steel toe cap &
penetration resistant steel insert
Available sizes: 36-47

















CASHEW

Low ankle double density safety shoe Black barton print leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47















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COM 3300

Low ankle double density safety shoe Nubuck leather upper Double density PU sole Impact resistant composite toe cap &

Impact resistant composite toe cap & penetration resistant para aramid insert

Available sizes: 36-47

















COM 3700

Low ankle double density safety shoe Black corrected grain leather upper Double density PU sole Impact resistant composite toe cap & para aramid insert Available sizes: 36-47



















COM 3400

High ankle double density safety shoe Black meena print grain leather upper Double density PU sole Impact resistant composite toe cap & para aramid insert Available sizes: 36-47



















NEBELUNG

High ankle double density safety shoe Brown oily finish 2 tone leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47



















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LYKOI

High ankle double density safety shoe Black goat print leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47









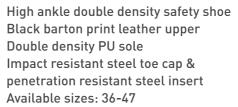






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BAMBINO

High ankle double density safety shoe Brown oily finish 2 tone leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















BERKLEY

High ankle double density safety shoe Black nubuck waterproof leather upper Double density PU sole Impact resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47















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Construction • Maintenance • Mining • Shipping



KIL

High ankle double density safety shoe Black waterproof barton print leather upper Double density PU sole Imapct resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















JORN

Low ankle double density safety shoe Black waterproof barton print leather upper Double density PU sole Imapct resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47















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BORG

Low ankle double density safety shoe Grey suede leather upper Double density PU sole Imapct resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47

















UPASALA

Low ankle single density safety shoe White microfiber material upper Single density PU sole Imapct resistant steel toe cap & penetration resistant steel insert Available sizes: 36-47













WINTER RANGE



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OREGON

High ankle nubuck leather shoe Beige leather upper with synthetic lining Moulded antistatic insocks Single density PU sole Impact reistant steel toe cap & steel insert Available sizes: 36-47



















NORTH 3600

High ankle double density safety shoe Black goat print waterproof leather upper Double density PU sole Impact resistant steel toe cap & steel insert Available sizes: 36-47

















ALASKA

High ankle double density safety shoe Black barton print waterproof leather upper Double density PU sole Impact resistant steel toe cap & steel insert Available sizes: 36-47

















VIK

High ankle safety shoe Tan barton print water proof leather upper Single density PU sole Impact resistant steel toe cap & steel insert Available sizes: 36-47

















HEAD PROTECTION

Few injuries are more fatal or more damaging than head injuries. Concessions, brain injuries, permanent or temporary brain damage are just a few of the possible outcomes of a blow to the head. Additionally, workers who are exposed to potential electric shock need to protect against that as well. Basic Personal Protective Equipment required for any worker is the safety helmet.

A. ASSESSMENT FACTORS

- Is there a possibility that something might fall from overhead?
- Are there any exposed electrical components (wiring, conductors, etc.) that might come into contact with your head?
- Are there fixed objects low enough, that one might bump into accidentally?

If you have answered yes to any one of these questions, then you should be wearing a safety helmet.

B. TERMINOLOGY

Bump Cap - Head protection gear designed for protection against low clearance objects only. A bump cap is not to be used in lieu of a hard hat where a hard hat is required.

Cap style - Refers to a safety helmet that has a brim on the front of the helmet only.

Brim - The rim surrounding the shell.

Full Brim - Refers to a safety helmet that has a brim that wraps around the entire safety helmet, as compared to the cap style safety helmet where the brim is only in the front of the safety helmet.

BUMP CAP CUSTOMIZATION:



Four Point Suspension - Refers to the number of clips that connect the suspension to the inside of the safety helmet. Safety helmets usually come in a four-point or a six-point suspension.

Chinstrap - An adjustable strap that fits under the chin to secure the helmet on the head.

Pin lock - Refers to the safety helmet suspension that adjusts to the head size by means of a set of holes on the one side of the strap and little pins that snap into the hols on the other side.

Ratchet - Refers to the safety helmet suspension that adjusts to the head size using a ratchet adjustment knob. Simple, easy and quick, this allows the safety helmet to be fit tight and comfortably.

Harness - The complete assembly by means of which the helmet is maintained in position on the head, which includes headband, cradle, etc.

Headband - Part of harness surrounding the head

Slots - Refers to the slot in the side of the safety helmet that is designed to accept accessories such as ear muffs, face shields or other safety helmets

Anti-concussion Tapes - Supporting straps which form the cradle

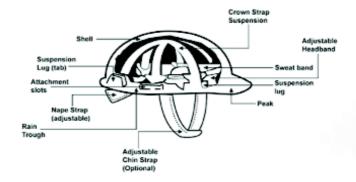
Cradle - The fixed or adjustable assembly comprising of anti-concussion tapes and nape strap, where provided.

Nape Strap - An adjustable (with respect to the shell) strap that fits behind the head to secure the helmet and may be an integral part of the helmet

Peak - The extension of the shell above the eyes.

Shell - The hard smoothly finished material that provides the general outer form of the helmet.

Ventilation Holes - Holes provided in the shell to permit circulation of air inside the helmet.



C.STANDARDS FOLLOWED

EN 397:1995 + A1:2012 - Protective helmets for industry

This details physical and performance requirements, methods of test and marking requirements for general-use of industrial safety helmets. Performance requirements for the helmet shell are provided. Mandatory requirements such as shock absorption, resistance to penetration, flame resistance, chin strap anchorages, and label are addressed. Physical requirements for industrial safety helmets including materials and construction, external vertical distance. Internal vertical distance, internal vertical clearance, horizontal distance, and wearing height are included.

ANSI/ISEA Z89.1-2014 (R2019)

Revision of ANSI/ISEA Z89.1-2009. This standard establishes minimum performance and labelling requirements for protective helmets used in industrial and occupational settings



under normal temperature conditions and optionally at high and low temperatures and when worn in the reversed position. It also includes requirements for high-visibility helmets and specifies test methods for evaluating all requirements.

Helmets conforming to the requirements of this standard are designated both by Type (based on location of impact force) and Class (based on electrical insulation) as well as any optional feature.

4.1 Impact Types

4.1.1 Type I

Type I helmets are intended to reduce the force of impact resulting from a blow only to the top of the head.

4.1.2 Type II

Type II helmets are intended to reduce the force of impact resulting from a blow to the top or sides of the head.

4.2 Electrical Classes

4.2.1 Class G (General)

Class G helmets are intended to reduce the danger of contact with low voltage conductors. Test samples shall be proof-tested at 2200 volts (phase to ground). This voltage is not intended as an indication of the voltage at which the helmet protects the wearer.

4.2.2 Class E (Electrical)

Class E helmets are intended to reduce the danger of contact with higher voltage conductors. Test samples are proof-tested at 20,000 volts (phase to ground). This voltage is not intended as an indication of the voltage at which the helmet protects the wearer.

4.2.3 Class C (Conductive)

Class C helmets are not intended to provide protection against contact with electrical hazards.

EN 812:2012 - Bump caps for industry

These are essentially intended for inside use. A bump cap is not intended to protect against the effects of falling objects and must not under any circumstance replace a protective industrial helmet.

IS 2925:1984 - Specification for Industrial Safety Helmets

This standard lays down the requirements regarding material, construction, workmanship and finish and performance requirements of helmets intended to provide protection against falling objects and other hazards which may be encountered in mining, tunnelling, quarrying, shipbuilding, construction projects and similar other industrial occupations.

IMPACT PROTECTION

Bump Cap testing as per standard EN 812, should be properly conditioned in low temp $(-10 \pm 2)^{\circ}$ C and high temp $(50 \pm 2)^{\circ}$ C for 4 hours to 24 hours and whether the force transmitted to the head form will exceed 15.0 KN or not should be verified accordingly.

RESISTANCE PENETRATION

A bump cap is tested (as per standard EN812) following appropriate conditioning processes in low temp (-10 \pm 2)°C and that of the high temp (50 \pm 2)°C for 4 hours to 24 hours such as the point of the striker cannot contact the head form surface.will exceed 15.0 KN or not should be verified accordingly.

CHIN STRAP ANCHORAGES

A bump cap when fitted with chin strap anchorages, shall be tested according to EN 812 to keep the force between 150N - 250N at which artificial jaw shall release due to anchorage failure.

EYE PROTECTION

Eye protection needs to be routinely considered for use by carpenters, electricians, machinists, mechanics, millwrights, plumbers, pipefitters, sheet metal workers, tinsmiths, assemblers, sanders, grinding machine operators, sawyers, welders, labourers, chemical process operators and handlers and timber cutting and logging workers.

A. ASSESSMENT FACTORS

Employers of workers in other job categories should decide whether there is a need for eye and face protecting PPE through a hazard assessment. Examples of potential eye or face injuries included:

- Dust, dirt, metal or wood chips entering the eye from activities such as chipping, grinding, sawing, hammering, the use of power tools or even strong wind forces.
- Chemical splashes from corrosive substances, hot liquids, solvents or other hazardous solutions.
- Objects swinging into the eye or face, such as tree limbs, chains, tools or ropes.
- Radiant energy from welding, harmful rays from the use of lasers or other radiant light (as well as heat, glare, sparks, splash and flying particles).

B. STANDARDS FOLLOWED

EN 166:2002 - Personal eye protection against various dangers

The EN 166 standard is applicable to all types of personal eye protectors used against various dangers liable to damage the eye or to alter the vision, with the exception of radiation of nuclear origin, X rays, laser beams, infrared rays given out by sources at low temperatures. The specifications of this standard are not applicable to eye protectors for which separate and complete standards exist, such as anti-laser eye protector, all-purpose solar spectacles, etc. The eye protectors fitted with corrective lenses are not excluded from the application field.

EN169 - Ocular filters for welding and related techniques

The EN169 standard gives the grade numbers and the transmission specifications of the filters intended to ensure the protection of users carrying out welding, arc gouging and plasma arc cutting works.

The other requirements apply for this type of filter are featured in the EN166 standard. The specifications for the welding filters with variable protection grade or double protection grade make the subject or the EN379 standard.

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EN175 - Equipment for eye and face protection during welding and allied processes

The EN175 standard specifies the safety requirements and test methods relating to personal protective equipment used to protect the user's eyes and face against harmful optical radiation and against other specific risks due to usual welding processes, cutting or other related techniques.

The present standard specifies the protection, including ergonomic aspects, against different types of risks or dangers: radiation, flammability, mechanical risks, electrical risks. The equipment is designed to adjust protective filters with or without guard lenses or eyepiece of reinforcement, according to the recommendations of the protective equipment manufacturer for welding operations, in conformity with EN166 and EN169 standards or with the EN379 standard.

APPLICATION CHART - TYPE OF THE GLASS

EN166	1	Optical Class.			
EN166	F	Low Energy Impact.			
EN166	В	Medium Energy Impact.			
EN166	9	Non adherence of molten metal and resistance to penetration of hot solids.			
EN166	3	Protection against liquid droplets/splashes.			
EN166	8	Protection against Short Circuit Electric Arc.			
EN169	3	Filters for personal eyes-protection equipment used in welding and similar operations, Scale number 3.			
EN169	5	Welding and braze welding of heavy metals. Welding with emitive fluxes (notably light alloys) Oxygen Cutting.			
EN169	8	Filters for personal eyes-protection equipment used in welding and similar operations. Scalenumber 8.			
EN170	3-1	For use with sources which emit predominantly Ultra Violet Radiation at wave lengths shorter than 313 mm and when glare is not an important factor. This coversn the UVC and most of the UVB bands.			
EN171	4-5	Protection against infra red radiations. Typical application in terms of mean temperature sources up to 1390°C.			

EAR PROTECTION

Determining the need to provide hearing protection for employees can be challenging.

A. ASSESSMENT FACTORS

- The loudness of the noise as measured in decibels (dB).
- The duration of each employee's exposure to the noise.
- Whether employees move between work areas with different noise levels.
- Whether the noise is generated from one or multiple sources.

B. TERMINOLOGY

Decibel (dB) - A unit used to measure the intensity of a sound or the power level of an electrical signal by comparing it with a given level on a logarithmic scale. In general use, it is a degree of loudness.

SNR (Single Number Rating) - Is a rating system set up by the European Union (EU). Tests are conducted by independent testing laboratories with no direct participation by manufacturers. The independent testing laboratories meet all of the regulatory requirements as set by the EU. The test results serve as a guideline to indicate the amount of potential protection, a hearing protection device will give in a noisy environment. This was established by the European Union and is aligned with the EN standard in Europe.

NRR (Noise Reduction Rating) - Is a rating system set up by the Environmental Protection Agency (EPA) as a guideline that indicates the amount of potential protection a hearing protection device will give in a noisy environment. It is aligned with the American ANSI standard. All tests are performed in a controlled environment. Consequently, posted NRR ratings are a qualified example of how the individual products compare with other similar hearing protection products in an uncontrolled noise environment. Test results do not evaluate the product reusability, comfort, adaptability or quality.

C. STANDARDS FOLLOWED

EN352-1 - Muffs and Headband

This section of the standard deals with head fasteners and establishes requirements in terms of manufacture, design and performance, test methods, instructions relating to marking and information intended for users.

EN352-2 - Plugs and Bands

This part of the standard also deals with individually moulded ear plugs and devices connected by a band, although, it does not deal with the performances of electronic devices likely to be inserted in the earplugs or on the case of amplitude sensitive plugs.

EN352-3 - Muffs and Helmet Mounted

The present section of the standard stipulates requirements in terms of manufacture, design and performance, test methods, instructions relating to head fastener marking and information intended for head fastener users, when the latter is fixed on protective industrial helmets

FACE PROTECTION

Respiratory masks give you a protection against respiratory attacks: dust - particulates, aerosols, fume or gas.

A. ASSESSMENT FACTORS

To choose the correct respiratory apparatus (half-mask or complete mask composed of one or two cartridges)

- Identify the type of risk: dust, fume, gas, vapours etc.
- Identify the toxic product
- Locate and record its toxicity (concentration)
- Compare with the Average and Limited Value of Exposure



DUST AND AEROSOL FILTERS

Type	Code	Protection
P1	White	Protects from coarse solid particles without specific toxicity (Calcium Carbonate).
P2	Yellow	Protects from solid and/or liquid aerosols warned to be hazardous or irritating (silica, sodium carbonate)
P3	Red	Protects from toxic solid and/or liquid aerosols (beryllium-radioactive particles).

B. TERMINOLOGY

Dust - Solid particles suspended in the air.

Fumes - Small particles suspended in the air.

Aerosols and Aqueous Fogs - Small droplets produced during pulverization.

Average Value of Exposure (AVE) - It corresponds to the concentration measured over one reference period (one day of 8H for example). If the AVE exceeds the concentration to which an individual can be exposed without running any risk for his health, a protection is necessary. The AVE is indicated on the card of toxicity of the handled products.

Limit Value Exposure (LVE) - It is the measured concentration over a maximum time of 15 minutes that is advisable not to exceed.

CLASSIFICATION OF THE FILTERS

Class	FFP1	FFP2	FFP3
Minimum efficiency %	78%	92%	98%
Total inward leakage	22%	8%	2%
Filter efficiency of the filtering medium	80%	94%	99%
Nominal Protection Factor	4.5	12.5	50
Mean Exposure Value (MEV)	4X	10X	20X

FILTER EFFICIENCY



C. STANDARDS FOLLOWED EN 136 - Overall Masks

It contains laboratory tests and practical performance tests to check the conformity with resistance to temperature, impacts, flame, thermal radiation, traction, cleansers and disinfectants. Furthermore, the visual inspection must concern the marking and the manufacturer's information guide.

EN 140 - Half Masks and Quarter Masks

It contains laboratory tests and practical performance tests to check the conformity with resistance to impacts, cleaners, disinfectants, temperature, flame and respiratory resistance.

EN 143 - Filters Against Particles

It contains laboratory tests to check the conformity with resistance to impacts, cleansers, disinfectants, temperature and flame. It also checks conformity with respiratory resistance.

EN 149 - Filtering Half Masks

It contains laboratory tests to check the conformity with resistance to impacts, cleansers, disinfectants, temperature, flame. It also checks conformity with respiratory resistance.

MEDICAL FACE MASKS

EN 14683:2020

This European Standard specifies construction, design, performance requirements and test methods for medical face masks intended to limit the transmission of infective agents from staff to patients during surgical procedures and other medical settings with similar requirements. A medical face mask with an appropriate microbial barrier can also be effective in reducing the emission of infective agents from the nose and mouth of an asymptomatic carrier or a patient with clinical symptoms.

Materials and construction

The medical face mask is a medical device, composed of a filter layer that is placed, bonded, or moulded between layers of fabric. The medical face mask shall not disintegrate, split, or tear during intended use.

Design

The medical face mask shall have a means by which it can be fitted closely over the nose, mouth, and chin of the wearer and which ensures that the mask fits closely at the sides. Medical face masks may have different shapes and constructions as well as additional features such as a face shield (to protect the wearer against splashes and droplets) with or without anti-fog function, or a nose bridge (to enhance fit by conforming to the nose contours.

Bacterial filtration efficiency (BFE)

The Bacterial Filtration Efficiency test determines the filtration efficiency by comparing the bacterial control counts to test article effluent counts. The test is conducted using Staphylococcus aureus as the challenge organism. After the filtration media is preconditioned, a liquid suspension of S. aureus is aerosolized and delivered to the filtration media at a constant flow rate of 28.3 litres per minute (LPM) or 1 cubic foot per minute (CFM)

Breathability

Air permeability of the mask, measured by determining the difference of pressure across the mask under specific conditions of air flow, temperature, and humidity The differential pressure is an indicator of the "breathability" of the mask.

Splash resistance

Splash resistance is the ability of a medical face mask to withstand penetration of synthetic blood projected at a given pressure.

Microbial cleanliness (Bioburden)

Cleanliness means freedom from population of viable micro-organisms on a product and/or a package, and freedom from particles that are contaminating a material and can be released but are not generated by mechanical impact

Biocompatibility

The manufacturer shall complete the evaluation of the medical face mask according to EN ISO 10993-1 and determine the applicable toxicology testing regime.



PERFORMANCE REQUIREMENTS FOR MEDICAL FACE MASKS

Test	Type I	Type II	Type III
Bacterial filtration efficiency (BFE): The ability of the face mask to filter our bacteria so that they are not released into the user's surroundings (BFE), (%).	≥ 95	≥ 98	≥ 98
Differential pressure: The lower this value, the easier it is for the user to breath normally (Pa/cm2).	<29.4	<29.4	<49
Splash resistance pressure: The ability of the face mask to withstand the penetration of liquid splashes (kPa).	NA	NA	<16.0
Microbial cleanliness: Microbial cleanliness documents cleanli- ness in the manufacturing process (cfu/g).	≤ 30	≤ 30	≤ 30

Type I medical face masks should only be used for patients and other persons to reduce the risk of spread of infections particularly in epidemic or pandemic situations. Type I masks are not intended for use by healthcare professionals in an operating room or in other medical settings with similar requirements.

HAND PROTECTION

Because of their tremendous versatility, hands are exposed and susceptible to many types of injuries. The common hazards against which hand protection needs to be routinely considered are:

- a. Cut
- b. Puncture
- c. Crush

- d. Pinch
- e. Rotating Equipment
- f. Vibrating Equipment
- g. Extreme Temperatures
- h. Electrocution

i. Irritation

A. ASSESSMENT FACTORS

The need for hand protection should be assessed by conducting

an assessment of potential workplace hazards. There are four interconnected factors to consider when selecting the best form of hand protection for the intended work.

- The type of hazard (physical, mechanical, chemical, biological).
- The nature of the task (regular process or incidental/ accidental).
- User comfort (fit, dexterity) and
- The workplace conditions (surface/ambient temperatures, wet/dry).



B. KNITTED GLOVES

The needle is the main instrument on a knitting machine. The gauge represents the number of needles in 1 English inch (2.54 inches). The higher the gauge, finer the glove, which results in better dexterity and sensibility. Gloves are available in 7,10,13, 15, & 17 gauges.

Kevlar® is a para-aramid fibre from DuPont which combines both lightness and extremely high tenacity. For a given weight, Kevlar is five times more resistant than steel.

Twaron® is the para-aramid fibre from AKZO Nobel.

Kevlar®/Twaron® fibre gloves are 3 times more resistant to cuts than cotton gloves and 5 times more resistant than leather gloves. They have the following characteristics:

- Burns between 425°C and 475°C without melting
- Self-extinguishing (cannot burn without outside addition of fuel)

- Good chemical stability
- Soft to touch, comfortable, washable, good dexterity

C. SUPPORTED GLOVES

Our technical seamless gloves are manufactured using fully automated machines, in our fully acclimatized production floors. The nitrile gloves plant manufactures heavy, medium and light dipped gloves, both in string knit as well as cut and sewn liners. Our production unit has knitting machines of 7, 10, 13 & 15 gauge and in pile construction. Keeping in mind the end users from various cross-sections of industries our units are equipped with machinery to knit from finer to coarser gauge products. We have a fully automated dipping process and the NBR is sourced from world famous manufacturers. Nitrile gloves are best when there is a need for greater in applications requiring mild chemical protection, cut resistance or a disposable glove solution.





D. LEATHER GLOVES

Leather Gloves are best for protection from rough objects, sparks and heat and in heavy-duty work requirements. All kinds of leather provide comfort, durability, dexterity, and mild heat resistance and abrasion protection. These advantages make leather a traditional favourite for industrial workers. Humidity controlled shop-floor facilitates better handling and delivery of leather gloves. The cutting and sewing machines, which are of European make are ultra modern with a high reputation. Our strength lies in being able to manufacture very high-quality gloves using a combination of leather, Para -aramid fabrics and liners. Having our own tannery gives us the advantage of producing leather conforming to international norms.



- Double stitching on all gloves with different pattern to five better appearance and tough stitching.
- Keystone thumb, Straight Thumb and wing thumb is possible.

E, STANDARDS FOLLOWED

Protective gloves can be divided into 3 categories depending on type and which risk or danger the gloves should protect against. Category 1: Gloves of simple design, for minimal risks only. Example of gloves in this category are house-hold gloves used for cleaning and for protection against warm objects or temperatures not exceeding +50° C. Additional gloves in this category can include light-duty gardening gloves or other work where the risk for injury is minimal.

Category 2: Gloves of intermediate design, for intermediate risks. Gloves are placed in this category when the risk is not classified as minimal or irreversible. The gloves must be subjected to independent testing and certification by a Notified Body, whom then issues a CE marking showing the gloves protective capacities. In this category, you will find general handling gloves requiring good puncture and abrasion performance according to EN 388.

Category 3: Gloves of complex design, for irreversible or mortal risks. Gloves in this category are designed to protect against the highest levels of risk e.g. highly corrosive acids. Gloves in this category must also be independently tested and certified by a Notified Body (approved by the EU commission).

EN 420 - General Requirement

This standard defines the general requirements for glove design and construction, innocuousness, comfort and efficiency, marking and information applicable to all protective gloves.

Glove Construction and Design

- Gloves have to offer the greatest possible degree of protection in the foreseeable conditions of end use
- When seams are included, the strength of these seams should not reduce the overall performance of the glove.

Innocuousness

- The gloves themselves shouldn't cause any harm to the user
- pH of the glove should be between 3.5 and 9.5
- Chromium (VI) content should be below detection (less than 3 ppm)

EN 388 - Gloves giving protection from mechanical risks

Protection against mechanical hazards is expressed by a pictogram followed by four numbers (performance levels), each representing test performance against a specific hazard.

1 Resistance to abrasion

Based on the number of cycles required to abrade through the sample glove (abrasion by sandpaper under a stipulated pressure). The protection factor is then indicated on a scale from 1 to 4 depending on how many revolutions are required to make a hole in the material. The higher the number, the better the glove.

2 Circular Blade cut resistance (Coup Test)

Based on the number of cycles required to cut through the sample at a constant speed. The protection factor is then indicated on a scale from 1 to 4.

3 Tear resistance

Based on the amount of force required to tear the sample. The protection factor is then indicated on a scale from 1 to 4.



4 Puncture resistance

Based on the amount of force required to pierce the sample with a standardly sized point. The protection factor is then indicated on a scale from 1 to 4.

5 Straight Cut Resistance (TDM-100 Test)

Based on the average load required to achieve a cut using a straight blade. The protection factor is then indicated on a scale from A to F.

6 Impact Resistance

An optional test based on the mean transmitted force which is intended for gloves designed for protection against impact. Gloves that do not offer impact protection will not be subjected to this test. For that reason, there are three potential ratings that will be given, based on this test. P (Pass), F (Fail), and X (Not tested)





TECT	Performace					
TEST	1	2	3	4	5	
Abrasion Resistance (Cycles)	100	500	2000	8000	-	
Blade cut resistance (Factor)	1.2	2.5	5	10	20	
Tear Resistance (Factor)	10	25	50	75	-	
Puncture Resistance (Newton)	20	60	100	150	-	

ECHOUCTIVE STOLP

Levels of performance for materials tested with EN ISO 13997						
Test	Level A	Level B	Level C	Level D	Level E	Level F
Straight Blade Cut	2	5	10	15	22	30

Impact Resistant Test with Standard 13594:2015						
Р	Passed	< 7.0kN				
2	Failed	≥ 9.0kN				
Х	Not Tested	NA				

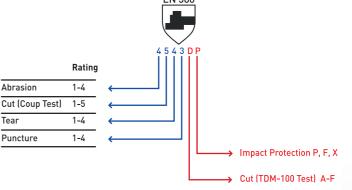
Volume Density

This indicates Volume Resistivity, where a glove can reduce the risk of electrostatic discharge. (Pass or fail test). These pictograms only appear when the gloves have passed the relevant test

EN 407

This standard specifies the test methods and the general requirements, the classification and the marking of gloves for protection against heat and/or fire (flames, contact heat, convective heat, radiant heat, small metal splashes or large projections of molten metal).

- a Resistance to flammability 0-4
- b Contact heat resistance 0-4
- c Convective heat resistance 0-4
- d Radiant heat resistance 0-4
- e Resistance to small splashes of molten metal 0-4
- f Resistance to large splashes of molten metal 0-4







abcdef

- Resistance to flammability 0-4
- o Contact heat resistance 0-4
- c Convective heat resistance 0-4
- d Radiant heat resistance 0-4
- e Resistance to small splashes of molten metal 0-4
- f Resistance to large splashes of molten metal 0-4

EN407 - Heat Protection

PERFORMANCE LEVELS	1	2	3	4
A. Burning behaviour (after flame & after glow time)	20s no requir.	<10s <120 s	<3s <25s	<2s <5s
B. Contact heat (cont. temp. & threshould time)	100°C >15s	250°C > 15s	350°C > 15s	500°C > 15s
C. Canvective heat (heat transafer delay)	>4s	>7s	>10s	>18s
D. Radiant heat (heat transfer delay)	>7s	>20s	>50s	>95s
E. Small drops molten mela (#drops)	>10	>15s	>25	>35
F. Large quantity molten metal (mass)	30g	60g	120g	200g

EN 374 - Gloves giving protection from dangerous chemicals and micro-organism Chemical protective gloves must meet the requirements of the European standard EN 374. This standard has now been modified substantially. Gloves with long cuffs greater or equal to 400mm are also to be tested with samples taken at 80mm from the end of cuff.



NEW	OLD
EN ISO 374-12016	EN 374-12003
"Protective gloves against dangerous chemicals and micro-organisms"	"Protective gloves against chemicals and micro-organisms"
Removal of reference to micro-organisms in the text (see new part 5)	Assumption of protection against micro-organisms
Number of test chemicals increased from 12 to 18	12 test chemicals
Beaker no longer used	Beaker for "waterproof protective gloves with limited protection against chemical dangers"
Gloves classified as type A, B or C	
Change of labelling on the product: pictogram of conical flask with differing number of letters for test chemicals per type	Pictogram of conical flask with at least 3 letters for test chemicals

3 specimens taken from the palm are tested for breakthrough times and the lowest is the result; the performance level is correlated with the breakthrough timetable. It is based on three test methods:

- Penetration test in accordance with standard EN 374-2: 2014
- Permeation test in accordance with standard EN 16523-1: 2015 which replaces standard EN 374-3
- Degradation test in accordance with standard EN 374-4: 2013

Type A: Protective glove with permeation resistance of at least 30 minutes each for at least 6 test chemicals.

Type B: Protective glove with permeation resistance of at least 30 minutes each for at least 3 test chemicals.

Type C: Protective glove with permeation resistance of at least 10 minutes for at least 1 test chemical.

NEW			OLD	
ISO 374-1-2016	ISO 374-1-2016/Type B	ISO 374-1-2016/Type C	EN 374:2003	EN 374:2003
JKLMNO	JKL		AKL	?

The chemical permeation table now includes 6 new categories labelled M through T.

	LIST OF HAZARDOUS COMPOUNDS					
CODE	CHEMICAL	CAS NUMBER	CLASS			
А	Methanol	67-56-1	Primary Alcohol			
В	Acetone	67-64-1	Ketone			
С	Acetonitrile	75-05-8	Nitrile composite			
D	Dichloromethane	75-09-2	Chlorinated hydrocarbon			
Е	Carbon disulphide	75-15-0	Organic compound containing sulphur			
F	Toluene	108-88-3	Aromatic hydrocarbon			
G	Diethylamine	109-89-7	Amine			
Н	Tetrahydrofuranne	109-99-9	Heterocyclic ether compound			
	Ethyl acetate	141-78-6	Ester			
J	n-Heptane	142-82-5	Saturated hydrocarbon			
K	sodium hydroxide 40%	1310-73-2	Inorganic base			
L	sulphuric acid 96%	7664-93-9	Inorganic mineral acid, oxidising			
М	nitric acid 65%	7697-37-2	Inorganic mineral acid,oxidising			
N	acetic acid 99%	64-19-7	Organic acid			
0	ammonia 25%	1336-21-6	Organic base			
Р	hydrogen peroxide 30%	7722-84-1	Peroxide			
S	hydrofluoric acid 40%	7664-39-3	Inorganic mineral acid			
T	formaldehyde 37%	50-00-0	Aldehyda			



EN 374-2:2014 - Determination of resistance to penetration There are no significant changes.

EN 374-3:2003 - Determination of resistance to permeation by chemicals

This standard has been removed and replaced by EN 16523-1:2015, Determination of material resistance to permeation by chemicals — Part 1: Permeation by liquid chemical under conditions of continuous contact, in the Official Journal after harmonisation. There is no significant effect on the test method.

EN 374-4:2013 - Determination of resistance to degradation by chemicals

This part is new and takes into account the effect of degradation (change of glove material) by the chemical. Degradation can cause brittleness, swelling or shrinkage of the polymer material, for example. This is equivalent to a

changing barrier function against the chemical. To be able to claim protection against a chemical of the list, permeation and from now degradation tests must be carried out. The results of the degradation test must appear in the information leaflet.

EN ISO 374-5:2015 - Terminology and performance requirements for micro-organisms risks

This standard is expected to become effective in 2017. It should be observed in particular for the risks of contact with micro-organisms (bacteria/viruses)

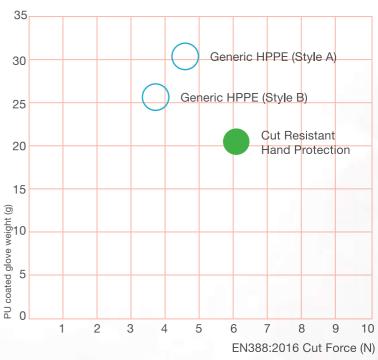
EN 511 - This standard applies to any glove to protect the hands against convective and contact cold until the temperature goes down to - 50°C. The 'cold hazard' pictogram is accompanied by a 3 - digit number:

- a. Resistance to convective cold (0-4)
- b. Resistance to contact cold (0-4)
- c. Permeability by water (0 or 1)

Thickness comparison between 13 gauge generic PE gloves and gloves with cut resistant hand protection fiber with similar range of cut resistance level B (ANSI A2)

0.9 mm 30% thinner 3GX19 gloves 0.8 in the same cut level (vs) generic HPPE gloves 0.6 mm 0.6 0.4 Thickness (mm) Gloves with Gloves with generic HPPE cut resistant (ANSI A3/EN388:2016+ (ANSI A5/EN388:2016+ A1:2018 Level C) A1:2018 Level E)

Standard 13 gauge or 15 gauge PU coated glove weight and cut resistance performance comparison





BODY PROTECTION

Employees who face possible body injury of any kind that cannot be eliminated through engineering, work practice or administrative controls, are adviced to wear appropriate body protection suits while performing their tasks.

7 WAYS OF LOGO/LABELLING:



A. ASSESSMENT FACTORS

The common hazards against which body protection needs to be routinely considered are:

- Temperature Stress
 Electricity
- Cut
 Visibility
 Chemical Contact
 Depending on the type of hazard one can go for different types of body protective clothing
- Fully encapsulating suits
- Non-encapsulating suits
- Firefighters' protective clothing
- Proximity, or approach clothing
- Radiation-protective suits
- Blast or fragmentation suits
- Gloves, boots, and hoods

B. STANDARDS FOLLOWED

EN340

General requirements of the protective garments, used only in combination with specific standards such as EN342 etc. General requirements are for ergonomics, ageing, sizing and marking of protective clothing, and for information supplied by the manufacturer.

EU DIRECTIVES CLASSIFY PPE IN THREE CATEGORIES CATEGORY I

Covers the lowest level of PPE. The user is assumed to assess the needs for protection himself, and there is a limited risk of severe consequences of not using appropriate clothing. The products under this category are self-declared by the marketer to comply with the standards. Products under this category are waterproof clothing (EN 343) and protecting clothing against the cold (EN 342)

EN 343: Protection Against Foul Weather

These garments are intended to protect against weather conditions with combinations of precipitation, rain, fog, humid-

ity and wind till temperature goes down to $+5^{\circ}$ C. They are tested for waterproofness (X) and breathability (Y); figures (1, 2 or 3) are given. Higher the number, better the results.



X Waterproofness; level 1, 2 or 3

Y Breathability; level 1, 2 or 3

EN 342: Protection Against Cold

Products are tested by measuring the insulation for an ensemble (jacket, trouser) worn. Air permeability and breathability are also measured. Figures (1, 2 or 3) are given against "X" for insulation, "Y" for air permeability and "Z" for breathability. Higher the number, better the results.



X Insulations; actual data (higher figure is best)
Y Air permeability; level 1, 2 or 3

Z Breathability; level 1, 2 or 3

CATEGORY II

Covers products intended to be used in environments with risk for severe, but no fatal consequences. The products must be tested and certified by a notified body. Products under this category are flame retardant clothing (EN 531/533/16112), clothing for high visibility (EN 471) and lifejackets (EN 395, 396 and 399), and buoyancy aids (EN 393)

EN 471: High Visibility Clothing

The standard specifies requirements for clothing intended to provide visibility of the user in hazardous situations under any light conditions by day and under illumination by vehicle headlights in the dark (24 hours visibility). Effective visibility is to be provided by a fluorescent fabric and reflective stripes. The visibility is measured as a combination of the area and positioning of the reflective materials (X) and the quality of same (Y).



X Area of reflective/fluorescent fabric; level 1, 2 or 3 Y Reflective type/quality; level 1 or 2

Class 1

Class 1 defines the lowest visibility level. Example, high visibility trousers with two 5cm reflective bands around each leg. However, these become Class 3 when worn with a Class 3 jacket.

Class 2

The class 2 defines an intermediary visibility level. Example - vests. Two 5cm bands of reflective material around the body or one 5cm band around body and braces to both shoulders.

Class 3

The class 3 defines the highest level of visibility. Example, jacket with long sleeves, jacket and trouser suit. Two 5cm bands of reflective tape around the body and arms plus braces over both shoulders.



FEET PROTECTION



Mallcom is a pioneer in the manufacturing of directly injected polyurethane safety footwear. The process is used to make rugged shoes that tackle the challenges that workers are exposed to in construction, mining, metallurgical and other different industries. The uppers are made of leather in combination with various imported raw materials. Mallcom's shoes use imported steel plates and toe caps to protect its wearer from falling objects and penetration by sharp objects. Mallcom manufactures protective footwear as per EN 20345 and BIS 15298 standards.

Protective footwear worn in the workplace is designed to protect the foot from physical hazards such as falling objects, stepping on sharp objects, heat and cold, wet and slippery surfaces, or exposure to corrosive chemicals.

A. ASSESSMENT FACTORS

Impact (falling/flying objects)

- Penetration (sharp objects piercing foot/hand)
- Compression (roll-over or pinching objects)
- Chemical exposure (inhalation, ingestion, skin contact, eye contact or injection)
- Extreme temperatures (heat or cold)
- Vibration
- Exposure to electricity

B. STANDARDS

EN344-1/EN ISO 20344 - Overall Requirement

It may be used only in conjunction with standards EN345-1/EN ISO 20345, EN346-1/EN ISO 20346 and EN347-1/EN ISO 20347, which specify the requirements for the shoes as a function of specific levels of risk involved

EN345-1/EN ISO 20345/IS 15298 - Specification for safety footwear for workplace

This standard defines the basic and the additional (optional) requirements for safety footwear for the workplace, as marked.

The shoes are designed and equipped with safety toe caps designed to withstand a maximum impact of 200 Joules and crushing up to $15\ kN$.

EN346-1/EN ISO 20346 - Specification for protective footwear marked

The shoes are designed and equipped with safety toe caps designed to withstand a maximum impact of 100 Joules and crushing up to 10 kN.

EN347-1/EN ISO 20347 - Specification for occupational shoes marked

These shoes are different from safety/protective footwear in that they have no protective toe cap for impact and crushing



SOLE	TIGER	TIGLON	DARWIN	OLIVER	MALKIN		
MATERIAL	PU	PU	PU/PU	PU/PU Rubber	PU		
DENSITY	SINGLE	SINGLE	DOUBLE	DOUBLE	SINGLE		
TPR INSERT	YES	YES	NO	YES	NO		
TOE CAP	STEEL	STEEL	STEEL	ВОТН	STEEL		
BUMPER CAP	NO	NO	NO	YES	NO		



SB or S1 to S5 (safety footwear) - PB or P1 to P5 (protective footwear) - 01 to 05 (occupational shoes)			
CLASS 1 OR 2	EN 345-1 / EN ISO 20345	EN 346-1 / EN ISO 20346	EN 347-1 / EN ISO 20347
ALL MATERIALS	SB : basic properties	PB : basic properties	PB : basic properties
CLASS 1 ALL MATERIALS EXCEPT FOR NATURAL OR SYNTHETIC	S1 : basic properties plus : – closed back – antistatic – energy absorbing heel	P1 : basic properties plus : — closed back — antistatic — energy absorbing heel	01 : basic properties plus : — closed back — hydrocarbon-resistant sole — antistatic — energy absorbing heel
	S2 : the same as S1 plus : — waterproof	P2 : the same as P1 plus : — waterproof	02 : the same as 01 plus : — waterproof
CLASS 2 NATURAL AND SYNTHETIC POLYMERS	S3 : the same as S2 plus : — puncture resistant sole — studded sole	P3 : the same as P2 plus : – puncture resistant sole – studded sole	03 : the same as 02 plus : – puncture resistant sole – studded sole
	S4 : basic properties plus : – antistatic – energy absorbing heel	P4 : basic properties plus : — antistatic — energy absorbing heel	04 : basic properties plus : — antistatic — energy absorbing heel
	S5 : the same as S4 plus : – puncture resistant sole – studded sole	P5 : the same as P4 plus : – puncture resistant sole – studded sole	05 : the same as 04 plus : – puncture resistant sole – studded sole







Standard (EN ISO 20345:2011) Standard (EN ISO 20345:2011)

C. TERMINOLOG

Heel (inclined)

Safety Footwear - Footwear, incorporating protective features to protect the wearer from injuries which could arise through accidents, fitted with toe caps, designed to give protection against impact when tested at an energy level of at least 200 J and against compression when tested at a compression load of at least 15 kN

Full Grain Leather - Hide or skin tanned to be imputrescible having conserved the totality of its grain

Corrected Grain Leather - Hide or skin tanned to be imputrescible which has been subjected to mechanical buffing to modify its grain structure

Leather Split - Flesh or middle part of a hide or skin tanned to be imputrescible obtained by splitting a thick leather

Rubber - Vulcanized elastomers

Polymeric Materials - For example polyurethane (PU) or polyvinyl chloride (PVC)

Insole - Non-removable component used to form the base of the shoe to which the upper is usually attached during lasting

Insock - Removable or permanent footwear component used to cover part or all of the insole

Lining - Material covering the inner surface of the upper

NOTE 1: The wearer's foot is in direct contact with the lining.

NOTE 2: Where an upper is split at the forepart to house the toe cap, or if an external piece of material is stitched to the upper to form a pocket to house the toe cap, the material under the toe cap acts as a lining.

Vamp Lining - Material covering the inner surface of the forepart of the upper

Quarter Lining - Material covering the inner surface of the quarters of the upper

Cleat(s) - Protruding part(s) of the outer surface of the sole Rigid Outsole - Sole which, when the complete footwear is tested cannot be bent through an angle of 45 degrees under a load of 30N

Cellular Outsole - Outsole having a density of 0.9 g/ml or less with a cell structure visible under 10x magnification

Penetration-resistant Insert - Footwear component placed in the sole complex in order to provide protection against penetration

Safety Toe Cap - Footwear component built into the footwear designed to protect the toes of the wearer from impacts up to an energy level of at least 200 J and compression at a load of at least 15 kN

Seat Region - Back part of the footwear (upper and sole)

Conductive Footwear - Footwear whose resistance lies in the range of 0 to 100k

Antistatic Footwear - Footwear whose resistance lies above 100k and is less than or equal to 1,000M

Electrically Insulating Footwear - Footwear which protects the wearer against electrical shocks by preventing the passage of dangerous current through the body via the feet

Fuel Oil - Aliphatic hydrocarbon constituent of petroleum Specific Job-Related Footwear - Safety, protective or occupational footwear relating to a specific profession, e.g. footwear for firefighters, footwear with resistance to chainsaw cutting, etc.



CROSS-SECTION OF A SAFETY SHOE



D. SOLE TECHNOLOGY Slip Resistant

Slip resistant sole makes our safety shoes unique in the industry. The spread of industries that our shoes cater to justify the quality of slip resistant sole - that meets the need for various industries. Moreover, the unique PANTM design of the sole is patented and provides the same grip on any kind of surface as it gives to the versatile feline in the jungle.



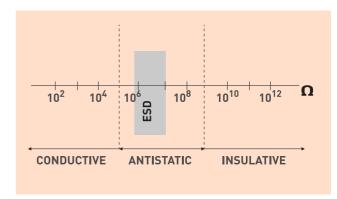
Shock Absorbent

The shock absorbent insole makes the feet of the worker less tired and easy comfort on harsh working condition. It's again our patented "Massue" system that makes feet relaxed. The ends on the feet are best massaged while walking and flexing that makes your worker less fatigued.

Electrostatic

Our range of safety shoes also includes ESD (electrostatic discharge) version to prevent or at least limit electrostatic charging and to ensure that any charges generated are diverted in a controlled manner. The ESD shoes are available for applications where people work with electrical sensitive equipment and parts like semiconductors and computer chips.

Anti-static resistance is in between 105 and 90 ESD resistance is in between 0.75 MOhm until 35MOhm



GLOSSARY OF ICONS:



Dry Enveronment



Abrasion



Grip



Culf



Oil Resistance



Water Resistance

Dexerity



Low Visibility



Knuckle Protection



EN 388 Cut Level 5



Rainforced



Cold









Multiutility

Cut





Knit Wrist Dots









Flexible



Light & Comfortable



Spark

Rough



Chemical



Puncture

Bump



Resistance



Ambidextrous

Impact



Micro Organisam



UV

Eye





Projectiles



Chemica



Air Con.



Hygenics



Antistatic

Bio Hazard



Rainfall



Slip

Resistance

Dust



Dirty



Breathable

Shock Resistant



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