

HEAT, SPLASHES & WELDING
YOU FEEL PERFECTLY EQUIPPED
FOR EVERY CRUCIAL TEST

There are situations where you have to be able to rely one hundred percent on your protective equipment. Our products in the Heat, Splashes & Welding category offer the highest level of safety whenever things get hot – in direct contact with sparks and splashes of liquid metal as well as in extreme heat exposure. Not to mention the many other dangers lurking in job and live.



PROBAN® 320 / 380 / 470

Mainly perfect for classical welding work – and now with additional protection against liquid iron. The PROBAN® cotton is particularly strong and made with a unique FR equipment, offering high wearing comfort and breathability. It provides welders with reliable protection against heat, sparks and welding splatters according to EN ISO 11611 up to class 2 A1. The flame resistance persists even after repeated laundry and cleaning cycles.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME	FABRIC WEIGHT	FABRIC NO.			REGULAR SIZES
1, 2, 3		53	medium grey	approx. 320 g/m²	01025	EN ISO 11611 Class 1 A1	EN ISO 11612 A1/B1/C1	46–58 & 94–110
1, 2, 3		41	royal	approx. 380 g/m²	01096	EN ISO 11611 Class 2 A1	EN ISO 11612 A1/B1/C1/E2/F1	
1, 2, 3		52	medium grey	approx. 470 g/m²	01272	EN ISO 11611 Class 2 A1	EN ISO 11612 A1/B1/C1/E3/F1	



JACKET
Welding protection class 1
Part number: **01025 10046 000 53**
Garment weight: approx. 615 g
Fabric weight: approx. 320 g/m²

JACKET
Welding protection class 2
Part number: **01096 10046 000 41**
Garment weight: approx. 790 g
Fabric weight: approx. 380 g/m²

JACKET
Welding protection class 2
Part number: **01272 10046 000 52**
Garment weight: approx. 895 g
Fabric weight: approx. 470 g/m²

Single-coloured • turn-down collar • closure band with snap fasteners on both sides • 1 chest pocket on the left and 2 side pockets, each reinforced and with flap and covered snap fastener • 1 inner front pocket on the right • sleeve hem width adjustable via covered inner snap fasteners • embroidered flame-retardant standard pictograms on the front.

TROUSERS
Welding protection class 1
Part number: **01025 20084 003 53**
Garment weight: approx. 620 g
Fabric weight: approx. 320 g/m²

TROUSERS
Welding protection class 2
Part number: **01096 20084 003 41**
Garment weight: approx. 770 g
Fabric weight: approx. 380 g/m²

TROUSERS
Welding protection class 2
Part number: **01272 20084 003 52**
Garment weight: approx. 905 g
Fabric weight: approx. 470 g/m²

Single-coloured • added waistband with covered buttoning • covered button fly • 2 slant pockets • 1 hip pocket on the right with flap and covered snap fastener and 1 ruler pocket on the right, each reinforced.



BIB AND BRACE TROUSERS
Welding protection class 1
Part number: **01025 50062 001 53**
Garment weight: approx. 745 g
Fabric weight: approx. 320 g/m²

BIB AND BRACE TROUSERS
Welding protection class 2
Part number: **01096 50062 001 41**
Garment weight: approx. 960 g
Fabric weight: approx. 380 g/m²

BIB AND BRACE TROUSERS
Welding protection class 2
Part number: **01272 50062 001 52**
Garment weight: approx. 1,105 g
Fabric weight: approx. 470 g/m²

Single-coloured • stretch braces with clamp-on clips • straight kidney protection • 1 bib pocket and 1 reinforced hip pocket on the right, each with flap and covered snap fastener • covered button fly • 2 side seam pockets and 1 ruler pocket on the right, each reinforced.



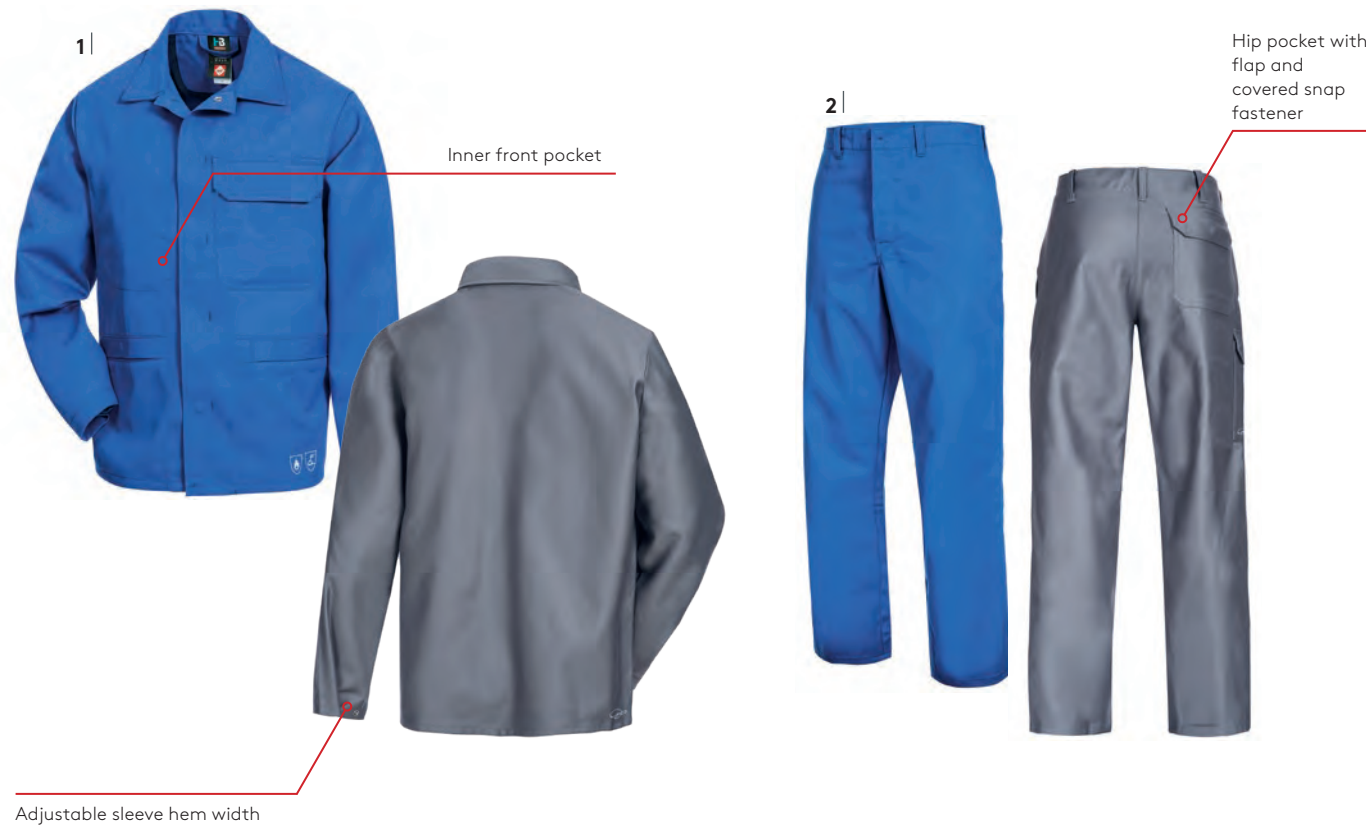
MATERIAL: 100 % COTTON ·
FABRIC WEIGHT: approx. 320 g/m² · approx. 380 g/m² · approx. 470 g/m² ·
FIELDS OF APPLICATION: Steel works, metalworking industry, welding companies, plant construction, foundries

SECAN® Plus 330 / 395

Thanks to a special finishing process SECAN® Plus welding protection garments meet the requirements of the leasing industry to a great extent. The material is hardly inflammable (it can withstand approx. 50 industrial laundings), and suited for fire hazardous areas as well as for works with liquid iron.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME	FABRIC WEIGHT	FABRIC NO.			REGULAR SIZES
1, 2, 3, 4		41	royal	approx. 330 g/m²	01018	EN ISO 11611 Class 1 A1+A2	EN ISO 11612 A1+A2/B1/C1/ E2/F1	46–58 & 94–110
1, 2, 3, 4		52	medium grey	approx. 395 g/m²	01249	EN ISO 11611 Class 2 A1+A2		



JACKET
Welding protection class 1
Part number: **01018 10048 000 41**
Garment weight: approx. 725 g
Fabric weight: approx. 330 g/m²

JACKET
Welding protection class 2
Part number: **01249 10204 000 52**
Garment weight: approx. 810 g
Fabric weight: approx. 395 g/m²

Single-coloured • turn-down collar • closure band with snap fasteners covered on both sides • 1 inner front pocket on the right • 1 front pocket on the left and 2 side pockets – each with pipes and covered snap fasteners • sleeve hem width adjustable via inside covered snap fasteners • standard pictograms as direct embroidery on the front • FR leasing label.

TROUSERS
Welding protection class 1
Part number: **01018 20003 025 41**
Garment weight: approx. 715 g
Fabric weight: approx. 330 g/m²

TROUSERS
Welding protection class 2
Part number: **01249 20003 025 52**
Garment weight: approx. 770 g
Fabric weight: approx. 395 g/m²

Single-coloured • added waistband with covered buttoning • covered button fly • 2 side seam pockets • 1 hip pocket on the right and 1 ruler pocket on the right, each with flap and covered snap fastener.



COVERALL
Welding protection class 1
Part number: **01018 30014 007 41**
Garment weight: approx. 1,285 g
Fabric weight: approx. 330 g/m²

COVERALL
Welding protection class 2
Part number: **01249 30014 007 52**
Garment weight: approx. 1,475 g
Fabric weight: approx. 395 g/m²

Single-coloured • turn-down collar • closure band with snap fasteners covered on both sides • 1 chest pocket on the left and 1 ruler pocket on the right • 1 inner chest pocket on the right and 2 pass-through piping pockets – each with covered snap fastener • cuffs with gusset • sleeve with hem width adjustable via covered snap fastener • FR leasing label.

BIB AND BRACE TROUSERS
Welding protection class 1
Part number: **01018 50002 006 41**
Garment weight: approx. 760 g
Fabric weight: approx. 330 g/m²

BIB AND BRACE TROUSERS
Welding protection class 2
Part number: **01249 50002 050 52**
Garment weight: approx. 880 g
Fabric weight: approx. 395 g/m²

Single-coloured • stretch braces with clamp-on clips • straight kidney protection • 1 inner bib pocket covered snap fastener • 2 side seam pockets with covered snap fastener • 1 ruler pocket on the right, with covered snap fastener • side access on the left and fly, each with buttoning.

MATERIAL: 100 % COTTON
FABRIC WEIGHT: approx. 330 g/m² · approx. 395 g/m² ·
FIELDS OF APPLICATION: Steel works, metalworking industry, welding companies, foundries, plant construction



SECAN® Securo 420

This medium-weight SECAN® collection offers reliable protection against liquid iron splashes (E3). The robust material with antistatic properties is also ideal for heavy welding work.

HEAT,
SPASHES &
WELDING



ITEM	COLOUR	COLOUR NO.	COLOUR NAME				REGULAR SIZES
1, 2, 3		52	medium grey	EN ISO 11611 Class 2 A1+A2	EN ISO 11612 A1+A2/B1/C1/ E3/F1	EN 1149-5	46-58 & 94-110



Adjustable sleeve hem

JACKET

Liquid metal Fe
Part number: **01248 10048 001 52**
Garment weight: approx. 870 g

Single-coloured • turn-down collar • closure band with snap fasteners covered on both sides • 1 inner front pocket on the right • 1 front pocket on the left and 2 side pockets – each with flap and covered snap fasteners • sleeve hem width adjustable via inside covered snap fastener • standard pictograms as direct embroidery on the front • FR leasing label.



Standard pictograms as direct embroidery



2 and 3 | Hip pocket and ruler pocket – each with flap and covered snap fastener

TROUSERS

Liquid metal Fe
Part number: **01248 20003 026 52**
Garment weight: approx. 810 g

Single-coloured • added waistband with covered buttoning • covered button fly • 2 side seam pockets • 1 hip pocket on the right and 1 ruler pocket on the right – each with flap and covered snap fastener.



BIB AND BRACE TROUSERS

Liquid metal Fe
Part number: **01248 50002 049 52**
Garment weight: approx. 950 g

Single-coloured • stretch braces with clamp-on clips • straight kidney protection • 1 outer bib pocket with flap and covered snap fastener • side access on the left and fly, each with buttoning • 2 side seam pockets with covered snap fastener • 1 hip pocket on the right and 1 ruler pocket on the right – each with flap and covered hook&loop fastener.







MATERIAL: 98 % COTTON, 2 % CARBON
FABRIC WEIGHT: approx. 420 g/m²
FIELDS OF APPLICATION: Steel works, metalworking industry, welding companies, foundries, plant construction, heat exposed workplaces



HB-Iron Pro

Relaunch of our bestseller for protection against liquid iron splashes (E3). Dynamic design and ergonomic fit are just as convincing as the performance: with only 420 g fabric weight, it offers the highest protection against heat radiation, welding splatters and large amounts of liquid iron. The SECAN quality guarantees flame resistance even after up to 50 industrial washes. Reflective stripes and fluorescent elements increase visibility, certified acc. to EN 17353.



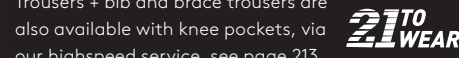
ITEM	COLOUR	COLOUR NO.	COLOUR NAME						REGULAR SIZES
1, 2, 3		3011	medium grey/orange/ fluorescent yellow	EN ISO 11612 A1+A2/B1/C1/ E3/F1	EN ISO 11611 Class 2 A1+A2	EN 1149-5	IEC 61482-2 APC 1	EN 17353 Typ B2	46-58 & 94-110



JACKET
Liquid metal Fe
Part number: **01248 10000 011 3011**
Garment weight: approx. 1,070 g

Three-coloured • stand-up collar with plastic snap fastener • fastening strip with snap fasteners, covered on both sides • 2 breast pockets with flap and covered snap fasteners • 2 set-in side pockets with plastic zipper • ergonomically shaped sleeves • sleeve hem width adjustable via plastic snap fasteners • flame-retardant reflective stripes with fluorescent yellow backing, suited for industrial laundry • no warning clothing according to EN ISO 20471 • FR leasing label • standard pictograms as FR direct embroidery on the front • roof tile manufacture.

Trousers + bib and brace trousers are also available with knee pockets, via our highspeed service, see page 213.



TROUSERS
Liquid metal Fe
Part number: **01248 20000 000 3011**
Garment weight: approx. 840 g

Three-coloured • fitted waistband with covered button fastening • fly with zip • 2 side seam pockets • 1 back pocket on the right, 1 folding rule pocket on the right and one leg pocket on the left • each with flap and covered snap fastener • shaped knees due to darts • flame-retardant reflective stripes on the leg with fluorescent yellow backing, suited for industrial laundry • no high-visibility clothing acc. to EN ISO 20471 • roof tile manufacture.

BIB AND BRACE TROUSERS
Liquid metal Fe
Part number: **01248 50100 005 3011**
Garment weight: approx. 1,100 g

Three-coloured • flame-retardant stretch braces with fixlock buckle • high-cut kidney protection • 2 side entrances with elastic knitted wedge • slit with zip • 2 side seam pockets • 1 bib pocket with flap and covered snap fastener • 1 hip pocket on the right, 1 ruler pocket on the right and one leg pocket on the left • each with flap and covered snap fastener • shaped knees due to darts • flame-retardant reflective stripes on the leg with fluorescent yellow backing, suited for industrial laundry • no high-visibility clothing acc. to EN ISO 20471 • roof tile manufacture.

MATERIAL: 98 % COTTON, 2 % CARBON

FABRIC WEIGHT: approx. 420 g/m²

FIELDS OF APPLICATION: Steel works, metalworking industry, welding companies, foundries, plant construction, heat exposed workplaces

HB-4welders® 2.0

Feel safe when welding: HB-4welders® 2.0 provides high-quality PPE for welders working under extreme conditions. It is perfectly suited for heavy duty welding work. SECAN® quality textiles have been tried and tested for many years, including extensively in the industrial laundry sector. Protection against molten metal splashes, sparks, welding beads and radiant heat.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME					REGULAR SIZES
1		2205	navy/medium grey	EN ISO 11611 Class 2 A1+A2	EN ISO 11612 A1+A2/B1/C1/E3/F1	EN 1149-5	IEC 61482-2 APC 1	46-58 & 94-110
2, 3		458	navy					
		52	medium grey					



BLOUSON
Welding protection class 2
Part number: **01237 10125 001 2205**
Garment weight: approx. 1,175g

Two-coloured • seamed with contrast colour off-white • band collar with covered snap fastener • closure band with covered PVC zip and covered snap fastener • 2 front pockets (+ mobile phone pocket on the right) with flap and covered snap fasteners • additional border on the lower arms • sleeve hems with adjustable covered snap fasteners • standard pictograms as direct FR embroidery on the front.



TROUSERS
Welding protection class 2
Part number: **01237 20060 034 + COLOUR NO.**
Garment weight: approx. 970g

Single-coloured • seamed with contrast colour off-white • added waistband with covered buttoning • fly with zip • 2 slant pockets • 1 hip pocket and 1 ruler pocket on the right (+ pen pocket) • 1 bellow pocket on the left (+ mobile phone pocket inside) – each with flap and covered snap fastener • knee pockets with adjustable hook&loop fastener.

Ladies' trousers available through our high-speed delivery service.
See page 212.

www.21towear.de

BIB AND BRACE TROUSERS
Welding protection class 2
Part number: **01237 50041 065 + COLOUR NO.**
Garment weight: approx. 1,130g

Two-coloured • seamed with contrast colour off-white • stretch braces with fixlock buckle • straight kidney protection • two-side access • PVC zip fly • 2 slant pockets • bib with outer pocket, flap and covered snap fastener • 1 hip pocket, 1 ruler pocket (+ pen pocket) and 1 bellows pocket (+ mobile phone pocket) – each with flap and covered snap fastener • knee pad pockets with adjustable covered hook&loop fastener.

MATERIAL: 89 % COTTON, 10 % POLYAMIDE, 1 % CARBON
FABRIC WEIGHT: approx. 390 g/m²
FIELDS OF APPLICATION: Welding companies, steel works, metalworking industry, foundries, plant construction



HB-welding & Vis

HB-welding & Vis was developed for welders working in areas at risk of arc flashes where high visibility is also required. With protection class 3 – the highest rating – HB-welding & Vis provides outstanding visibility even in poor viewing conditions, in workshops and in twilight. The material is wind-repellent and water-repellent, breathable and hard-wearing.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME							REGULAR SIZES
1, 2, 3		2147	fluorescent orange/black blue	EN ISO 11611 Class 2 A1	EN ISO 11612 A1/B1/C1/E1/F1	EN ISO 20471 Class 2	EN 1149-5	IEC 61482-2 APC 1	EN 13034 Type PB (6)	46-58 & 94-110



JACKET
Welding protection class 2
Part number: **01121 1M015 000 2147**
Garment weight: approx. 1,234g

Two-coloured • stand-up collar with covered snap fastener • covered zip • 2 chest pockets with flap and covered hook&loop, on the left with pen pocket with 3 compartments, on the right 1 mobile phone pocket • 1 inner pocket on the left with hook&loop fastener • 2 side pockets and 1 pocket on left sleeve – each with flap and covered hook&loop fastener • wristband adjustable via hook&loop • waist with elastic band on both sides • flame retardant reflective stripes • standard pictograms as FR embroidery on right sleeve.

Further colour combinations are available through our high-speed delivery service. See page 213.



TROUSERS
Welding protection class 2
Part number: **01121 2M008 000 2147**
Garment weight: approx. 1,031g

Two-coloured • attached waistband, elastic band on both sides, 2 snap fasteners and high kidney protection with reflective stripes • 2 slant pockets • 2 back pockets, 1 ruler pocket on the right and 1 bellow pocket on the left – each with flap and covered hook&loop fastener • fly with zip • knee reinforcement on the inside • flame retardant reflective stripes • standard pictograms as FR embroidery on left leg pocket.

MATERIAL: 31 % POLYESTER, 28 % MODACRYLIC, 20 % ARAMIDE, 20 % VISCOSE, 1 % CARBON
FABRIC WEIGHT: approx. 320 g/m²
FIELDS OF APPLICATION: Welding companies, energy suppliers, track construction, chemical industry, public services, heat exposed workplaces, road construction

HABETEX®

Fans of natural fibres should try out this work clothing with low flammability: Marlan contains 30 % wool and 50 % viscose. This fibre combination offers efficient protection against liquid aluminium and iron as metal splashes easily drip off. The polyamide part of the fabric improves the mechanical resistance.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME			REGULAR SIZES
1, 2, 3		45	navy	EN ISO 11611 Class 1 AI	EN ISO 11612 A1/B1/C1/D3/ E3/F1	46-58 & 94-110
4						46-58



JACKET

Liquid metal Al + Fe
Part number: **01180 10214 000 45**
Garment weight: approx. 838 g

Single-coloured • turn-down collar • contrast stitching on shoulders and on the sides • set-in sleeve with pivot spacing • 1 breast pocket on left with flap • front pocket on right with flap • front closure with snap fasteners • manufactured in roof tile design.



TROUSERS

Liquid metal Al + Fe
Part number: **01180 20148 000 45**
Garment weight: approx. 791 g

Single-coloured • 2 slant pockets • covered front closure with snap fasteners • right-side ruler pocket • right-side back pocket.



BIB AND BRACE TROUSERS

Liquid metal Al + Fe
Part number: **01180 50101 000 45**
Garment weight: approx. 963 g

Single-coloured • adjustable braces • bib pocket • size-adjustable hip width • side pockets • covered front closure with snap fasteners • right-side ruler pocket • right-side back pocket • manufactured in roof tile design.

SHIRT

Liquid metal Al + Fe
Part number: **01180 60028 000 45**
Garment weight: approx. 647 g

Single-coloured • mandarin collar • set-in sleeve with pivot spacing • covered front closure with hook&loop fastener FR • manufactured in roof tile design.

MATERIAL: 50 % VISCOSE FR · 30 % WOOL · 20 % POLYAMIDE ·

FABRIC WEIGHT: approx. 365 g/m² ·

FIELDS OF APPLICATION: Aluminium working industry, foundries, metalworks, heat exposed workplaces

HABETEX®

HB-FluidMetal Pro 340 / 430

HB-FluidMetal Pro, available in two weight classes, is the answer to the special requirements of the protective function of PPE for working with high temperatures or molten metal. The material has good moisture management and is comfortable to wear thanks to the balanced material mix. The fabric also offers anti-static properties and protects the wearer from electric arcs. Now also certified acc. to EN 17353 Hi-Vis protection.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME	FABRIC WEIGHT						REGULAR SIZES
1, 2, 3		2043	navy/ medium grey	approx. 340 g/m ²	EN ISO 11611 Class 1 A1+A2	EN ISO 11612 A1+A2/B1/C1/D2/E2/F1	EN 1149-5	IEC 61482-2 Class 1	EN 17353 Typ B2	46-58 & 94-110
1, 2, 3		2070	medium grey/ pure orange	approx. 430 g/m ²	EN ISO 11611 Class 2 A1+A2	EN ISO 11612 A1+A2/B1/C1/D3/E3/F1				



JACKET
Liquid metal Al + Fe
Part number: **01221 10020 002 + COLOUR NO.** (340 g/m²)
Garment weight: approx. 840 g

JACKET
Liquid metal Al + Fe
Part number: **01218 10020 002 + COLOUR NO.** (430 g/m²)
Garment weight: approx. 1,060 g

Two-coloured • stand-up collar with covered snap fastener • 2 breast pockets with flap • 2 side pockets • covered front closure with snap fastener • FR neck label • flame-retardant reflective stripes, suitable for industrial laundry • standard pictograms as FR direct embroidery at the front • manufactured in roof tile design • no Hi-Vis protective clothing acc. to EN ISO 20471.

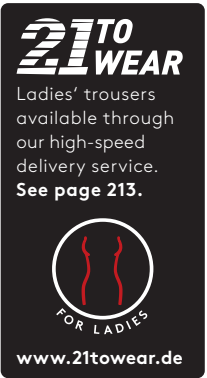
1 to 3 |
Ergonomic cut for more freedom of movement



TROUSERS
Liquid metal Al + Fe
Part number: **01221 20019 002 + COLOUR NO.** (340 g/m²)
Garment weight: approx. 760 g

TROUSERS
Liquid metal Al + Fe
Part number: **01218 20019 002 + COLOUR NO.** (430 g/m²)
Garment weight: approx. 980 g

Two-coloured • 2 slant pockets • fly with spiral zip fastener • 2 back pockets, 1 ruler pocket on the right and 1 bellows pocket left, each with flap and covered snap fastener • knee pocket with adjustable hook&loop fastener • flame-retardant reflective stripes, suitable for industrial laundry • no Hi-Vis protective clothing acc. to EN ISO 20471 • manufactured in roof tile design.



BIB AND BRACE TROUSERS
Liquid metal Al + Fe
Part number: **01221 50013 002 + COLOUR NO.** (340 g/m²)
Garment weight: approx. 1,030 g

BIB AND BRACE TROUSERS
Liquid metal Al + Fe
Part number: **01218 50013 002 + COLOUR NO.** (430 g/m²)
Garment weight: approx. 1,300 g

Two-coloured • flame-retardant Fixlock stretch braces • breast bib pocket • two-sided access with gusset • 2 side seam pockets • slit detail with spiral zip fastener • 2 back pockets • pocket for folding rule right and 1 bellows pocket left each with flap and covered snap fasteners • knee pad pocket with adjustable hook&loop fastener • flame-retardant reflective stripes, suitable for industrial laundry • no Hi-Vis protective clothing acc. to EN ISO 20471 • manufactured in roof tile design.

MATERIAL: 01221 50 % COTTON, 39 % MODACRYLIC, 10 % VISCOSE, 1 % CARBON
MATERIAL: 01218 52 % COTTON, 37 % MODACRYLIC, 10 % VISCOSE, 1 % CARBON
FABRIC WEIGHT: approx. 340 g/m² (01221) · approx. 430 g/m² (01218)
FIELDS OF APPLICATION: Aluminium working industrie, foundries, steelworks, heat-exposed workplaces

HABETEX®

Prime selection with liquid aluminium and iron: VINEX® impresses by its extraordinary and highly efficient protective properties while working with liquid metals and being exposed to metal splashes. The inherent flame-retardant fabric offers with D3 / EN 11612 the most high certified protection against aluminium splashes. In addition the fabric is very soft and offers high wearing comfort. Now also with Electric Arc Flash protection.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME			REGULAR SIZES
1 , 2 , 3		48	dark blue	EN ISO 11612 A1+A2/B1/C1/ D3/E3/F1	IEC 61482-2 APC 1	46-58 & 94-110
4				EN ISO 11612 A1+A2/B1/C1/ D1/E1/F1	-	39/40-47/48



High band collar with covered hook& loop fastener



Large inner pocket

Manufactured in roof tile design

BLOUSON

Liquid metal Al + Fe
Part number: 01058 10015 005 48
Garment weight: approx. 960g

Single-coloured • high band collar with covered hook&loop fastener • closure band with snap fasteners covered on both sides • 1 front pocket on the left and 2 side pockets – each with flap and covered snap fasteners • 1 inner pouch pocket on the right with snap fastener • FR leasing label • sleeve hem width adjustable via inwards covered snap fasteners.

TROUSERS

Liquid metal Al + Fe
Part number: 01058 20013 003 48
Garment weight: approx. 1,005g

Single-coloured • added waistband with 7 belt loops and covered buttoning • covered snap fastener fly • 2 side seam pockets • 1 hip pocket and 1 ruler pocket on the right with flap and covered snap fastener • trouser leg manufactured in roof tile design.



2 and 3 | Roof tile design makes liquid metal splashes easily drip off

BIB AND BRACE TROUSERS

Liquid metal Al + Fe
Part number: 01058 50012 003 48
Garment weight: approx. 1,130g

Single-coloured • stretch braces with clamp-on clips • 1 inner bib pocket with snap fastener • 2 side seam pockets with covered snap fasteners, 1 hip pocket on the right and 1 ruler pocket on the right – each with flap and covered snap fastener • 1 side access on the left and button fly • trouser leg manufactured in roof tile design.



Stand-up collar with flap and covered hook&loop fastener



SHIRT, WITH STAND-UP COLLAR

Liquid metal Al + Fe
Part number: 01057 60002 004 48
Garment weight: approx. 540g

Single-coloured • stand up collar with hook&loop fastening • front zipper with snap fasteners covered on both sides • left hand side chest pocket with flap and covered snap fasteners • sleeves with adjustable wristbands via covered snap fastener.

MATERIAL: 85 % VINYLAL, 15 % MODAL

FABRIC WEIGHT: 1| to 3| approx. 390 g/m² · 4| approx. 285 g/m²

FIELDS OF APPLICATION: Aluminium industry, steel and metal works, foundries, heat exposed workplaces



NOMEX® Comfort light & ACCESSORIES HEAT

The NOMEX® Comfort fabric shirt and NOMEX III underwear are fibre-inherent flame retardant and provide permanent flame protection. Combined with heat protective outerwear, they provide the best possible protection against the effects of heat and flame. The low material weight and comfortable interlock knit fabric offer freedom of movement even in very uncomfortable workplaces. Supplement your heat protection PPE additionally with cooling accessories.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME			REGULAR SIZES
1		41	royal	EN ISO 11612 A1/B1/C1/F1	EN 1149-5	39/40–47/48
2 , 3		11	off white	–	–	5–8

CLASSIC SHIRT
Heat Protection
Part number: **01046 60000 008 41**
Garment weight: approx. 365 g

Single-coloured • turn-down collar with added collar band • closure band with buttons • 1 front pocket on the left • wristband with buttoning • hydrophil equipment for optimised humidity transport.

1|



Optimised humidity transport thanks to Hydrophil equipment

UNDERSHIRT
Accessories
Part number: **01205 7Z015 003 11**

Single-coloured • round neckline • long-sleeve.

2|



3|



UNDERTROUSERS
Accessories
Part number: **01205 7Z016 003 11**

Single-coloured • long • flyless.

MATERIAL: 1| 98 % ARAMIDE, 2 % CARBON · 2| and 3| 100 % ARAMIDE ·
FABRIC WEIGHT: 1| approx. 185 g/m² · 2| and 3| approx. 180 g/m² ·
FIELDS OF APPLICATION: Plant engineering and construction, energy suppliers, electric installation, public services, electricians



ITEM	COLOUR	COLOUR NO.	COLOUR NAME		SIZES
1 , 2		45	navy	–	S–2XL
3		58	anthracite	–	approx. 240 x 165 x 18 mm
4		46	black	EN ISO 11612-A1 Material	Length: 90 cm/110 cm/130 cm; Width: 38 mm

COOLING VEST
Accessories
Part number: **90026 16021 000 45**
Garment weight: approx. 260 g

Single-coloured • V-neck • covered hook&loop fastening for variable width adjustment • torso in short form for health protection: kidney area free of cooling • activated evenly with water in a few seconds without leaving condensation or water drops on clothing • can be put on immediately under any clothing • lowers body temperature to a normal physiological level • outer fabric antibacterial due to natural silver ions • 3D high-tech polyester fleece.

1|



1 and 2|
Antibacterial outer fabric

COOLING BANDANA
Accessories
Part number: **90026 76026 000 45**
Garment weight: approx. 90 g

Single-coloured • with ties at the back • back centre with flap for cooling the neck area • activated evenly with water in a few seconds without leaving condensation and water drops on the clothing • can be put on immediately under the helmet/headgear • outer fabric antibacterial due to natural silver ions • 3D high-tech polyester fleece.

2|



KNEE PADS
Accessories
Part number: **04033 76013 000 58**
Garment weight: approx. 70 g

The lightweight and sturdy knee pads protect the knees and increase comfort during activities that require kneeling. Suitable for all HB trousers equipped with knee pockets. Even withstands several domestic washings if it remains in the knee pockets (Note: no industrial laundry).

3|



Sale unit: 1 pair

BELT FR
Accessories
Part number: **01113 76012 000 46**
Garment weight: approx. 80 g

Stretch belt made of flame-retardant knitted material with plastic buckle, suited for heat protection clothing. The certified material meets the requirements regarding combustion behaviour and heat resistance and shrinkage with industrial laundry according to EN ISO 11612-A1.

4|



MATERIAL: 1| and 2| Outer material: 100% POLYESTER, inner material: 100 % COOLINE® POLYESTER ·
FABRIC WEIGHT: 1| and 2| approx. 580 g/m² ·
FIELDS OF APPLICATION: Heat and flame exposed workplaces, energy suppliers, public services, plant engineering and construction, electricians

For works in high-temperature environments, we offer aluminised heat protection clothing from head to toe in four different materials, including two lightweight and very high-performance qualities. They complete our product range, including COMFORT and COMFORT-Plus versions with numerous feature options. For example, the foundry coat is available in 84 and the heat protection jacket in 42 variants.



JACKET
CK-12/Z

PROTECTIVE
HOOD
KF-3/Z

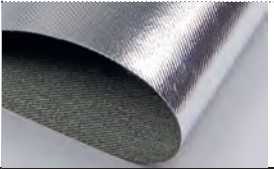
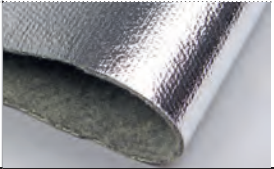
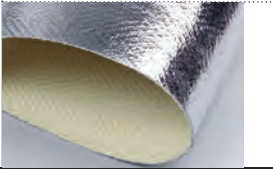
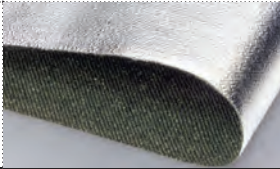
TROUSERS
CK-12/Z

GAITERS
CK-4/Z

5-FINGER-
GLOVES
AW-1/Y

TEMPEX® TREME HEAT MATERIAL OVERVIEW

The materials differ in terms of the composition and construction of the carrier material, the type of aluminisation, the weight and the specific protective properties against the various forms of heat load. Wearing comfort and mechanical strength also vary.

Material name	CK-12/Z	AW-1/Y	KF-3/Z	CK-4/Z
Part number	12014	12008	12003	12015
Material	70 % preox, 30 % para-aramide	100 % aramide (70 % recycled meta-aramide, 30 % para-aramide)	100% para-aramide	70 % preox, 30 % para-aramide
Material weight	approx. 360 g/m²	approx. 420 g/m²	approx. 475 g/m²	approx. 690 g/m²
Carrier material	Twill	Knitted fabric with roughened nap	Herringbone twill	Twill
Aluminisation	High-vacuum metallisation	PES film aluminised on both sides	High-vacuum metallisation	High-vacuum metallisation
Standards	EN ISO 11612 A1/B1/C3/D3/E3/F1	EN ISO 11612 A1/B1/C4/D3/E3/F2	EN ISO 11612 A1/B1/C3/D3/E3/F1	EN ISO 11612 A1/B1/C3/D3/E3/F2
Protection properties	<ul style="list-style-type: none">• High protection against radiant heat• Very good protection from liquid metal spatters• Very lightweight and soft design for high wearing comfort• Good mechanical strength	<ul style="list-style-type: none">• Highest protection against radiant heat (C4)• Very high thermal insulation and heat barrier• Very good protection from liquid metal spatters• Lightweight and very soft design for high wearing comfort	<ul style="list-style-type: none">• High protection against radiant heat• Very good protection from liquid metal spatters• Very high mechanical strength	<ul style="list-style-type: none">• High protection against radiant heat• High protection against contact heat• Very good protection from liquid metal spatters• Very high mechanical strength
Detailed photo				

FIELDS OF APPLICATION:
Steelworks, aluminium-processing industry, foundries, heat-exposed workplaces, metal processing industry

TEMPEX®-TREME HEAT

We offer jacket, trousers, foundry coat and sleeve apron in the resistant material KF-3/Z in various designs. Choose between hook&loop- and Ruck-Zuck-fastening as well as different coat and jacket lengths (see model overview on page 222).

21 TO WEAR

HEAT, SPLASHES & WELDING

MAT. NO.	MATERIAL	COLOUR	COLOUR NO.	COLOUR NAME		REGULAR SIZES
12003	KF-3/Z		15	silver	EN ISO 11612 A1/B1/C3/D3/E3/F1	46/48-58/60



JACKET
Metalized heatprotection (C3)
Part number: **12003 11080 000 15 (KF-3/Z)**
Garment weight: approx. 1,025 g

Inner collar with flame-retardant cotton lining • front with covered hook&loop fastener FR • FR seams • length: approx. 80 cm.
Further available lengths: 90 cm/100 cm.

TROUSERS
Metalized heatprotection (C3)
Part number: **12003 2H003 000 15 (KF-3/Z)**
Garment weight: approx. 1,131 g

Sewn-in adjustable suspenders • covered zip fly with snap fastener closure • FR seams.

21 TO WEAR

All other versions are available via our 21 TO WEAR® high-speed delivery service. For more information see the model overview on page 214/215.



FOUNDRY COAT
Metalized heatprotection (C3)
Part number: **12003 41030 000 15 (KF-3/Z)**
Garment weight: approx. 1,520 g

Inner collar with flame-retardant cotton lining • front with covered hook&loop fastener FR • FR seams • length: approx. 130 cm.
Further available length: 140 cm.



APRON WITH SLEEVES
Metalized heatprotection (C3)
Part number: **12003 71130 000 15 (KF-3/Z)**
Garment weight: approx. 1,125 g

Neckline with FR molleton • opening with covered hook&loop fastener • hook & loop fastener on the back • back protection with hook & loop fastener • ergonomic sleeves • sleeve width adjustable via snap fastener inside • all seams with FR thread • length: approx. 130 cm.

TEMPEX®-TREME HEAT

Our bib and half apron are also available in the robust KF-3/Z material and are now equipped with an adjustable hook&loop fastener for faster donning and doffing.



TEMPEX®-TREME HEAT
COMFORT

In the COMFORT program we offer all models in the materials CK-12/Z and AW-1/Y for high wearing comfort and protection. The jacket has hook&loop or snap fastener, ergonomic and width-adjustable sleeves as well as different lengths, the trousers have a comfort waistband and a hem-length hook&loop fastener.



MAT. NO.	MATERIAL	COLOUR	COLOUR NO.	COLOUR NAME		SIZES
12003	KF-3/Z		15	silver	EN ISO 11612 A1/B1/C3/D3/E3/F1	One size

21 TO WEAR

All other versions are available via our 21 TO WEAR® high-speed delivery service. For more information see the **model overview** on page 214/215.



BIB APRON
Metalized heatprotection (C3)
Part number: **12003 71131 000 15 (KF-3/Z)**
Garment weight: approx. 642 g

Neck strap • hook&loop fastener for closing • all seams with FR thread • length: approx. 130 cm.

HALF APRON
Metalized heatprotection (C3)
Part number: **12003 71100 000 15 (KF-3/Z)**
Garment weight: approx. 511 g

Hook&loop fastening • all seams with FR thread • length: approx. 100 cm.

MAT. NO.	MATERIAL	COLOUR	COLOUR NO.	COLOUR NAME		REGULAR SIZES
12014	CK-12/Z		15	silver	EN ISO 11612 A1/B1/C3/D3/E3/F1	46/48–58/60
12008	AW-1/Y				EN ISO 11612 A1/B1/C4/D3/E3/F2	



JACKET
Metalized heatprotection (C3)
Part number: **12008 11180 000 15 (AW-1/Y)**
Garment weight: approx. 805 g

Ergonomic sleeves, width adjustable via snap fastener inside • inner collar with flame-retardant cotton lining • front with covered hook&loop fastener FR • FR seams • length: approx. 80 cm. Further available lengths: 90 cm/100 cm.

TROUSERS
Metalized heatprotection (C3)
Part number: **12014 21000 001 15 (CK-12/Z)**
Garment weight: approx. 780 g

TROUSERS
Metalized heatprotection (C3)
Part number: **12008 21000 001 15 (AW-1/Y)**
Garment weight: approx. 920 g

Sewn-in adjustable braces • covered zip fly with snap fastener • covered zip fly with hook&loop fastener • comfort waistband with side elastic band • inner waistband with FR molleton • quick access thanks to hook&loop fasteners at both sides of the legs • all seams with FR thread.

TEMPEX®-TREME HEAT COMFORT

Foundry coat, sleeve apron and bib apron are also offered in the two lightweight and soft materials with excellent protection against larger iron and aluminum splashes (D3 and E3) and the highest level of protection against radiant heat C4 (AW-1/Y). The COMFORT design here also includes ergonomically shaped sleeves, walking slit on the coat, several length and closure options, among others.



MAT. NO.	MATERIAL	COLOUR	COLOUR NO.	COLOUR NAME		REGULAR SIZES
12014	CK-12/Z		15	silver	EN ISO 11612 A1/B1/C3/D3/E3/F1	46/48–58/60
12008	AW-1/Y				EN ISO 11612 A1/B1/C4/D3/E3/F2	Bib apron: One size



FOUNDRY COAT
Metalized heatprotection (C3)
Part number: **12014 41130 001 15 (CK-12/Z)**
Garment weight: approx. 1,150 g

FOUNDRY COAT
Metalized heatprotection (C4)
Part number: **12008 41130 001 15 (AW-1/Y)**
Garment weight: approx. 1,310 g

Ergonomic sleeves, width adjustable via snap fastener inside • inner collar with flame-retardant cotton lining • front with covered hook&loop fastener FR • walking slit • FR seams • length: approx. 130 cm.
Further available lengths: 110 cm/120 cm/140 cm.

21 TO WEAR

All other versions are available via our high-speed delivery service. For more information see the model overview on page 214/215.

More sizes available – see size table on page 220



APRON WITH SLEEVES
Metalized heatprotection (C4)
Part number: **12008 71130 000 15 (AW-1/Y)**
Garment weight: approx. 1,005 g

Neckline with FR molleton • opening with covered hook&loop fastener • hook&loop fastener on the back • back protection with hook&loop fastener • ergonomic sleeves • sleeve width adjustable via snap fastener inside • all seams with FR thread • length: approx. 130 cm.
Further available length: 140 cm.

BIB APRON
Metalized heatprotection (C4)
Part number: **12008 71131 000 15 (AW-1/Y)**
Garment weight: approx. 520 g

Neck strap • hook&loop fastener for closing • all seams with FR thread • length: approx. 130 cm.
Further available length: 110 cm.

TEMPEX®-TREME HEAT COMFORT Plus

The COMFORT Plus program comprises the most comfortable equipment: the COMFORT versions are supplemented by additional features. In addition to the standard underarm ventilation, we offer optional additional back ventilation and, in the case of the caster coat, also the choice between a walking slit and the more comfortable concealed walking pleat for the best possible freedom of movement with optimum protection even when walking.



MAT. NO.	MATERIAL	COLOUR	COLOUR NO.	COLOUR NAME		REGULAR SIZES
12014	CK-12/Z		15	silver	EN ISO 11612 A1/B1/C3/D3/E3/F1	46/48-58/60
12008	AW-1/Y				EN ISO 11612 A1/B1/C4/D3/E3/F2	



- FOUNDRY COAT

Metalized heatprotection (C3)
Part number: 12014 41130 021 15 (CK-12/Z)
Garment weight: approx. 1,180 g
- FOUNDRY COAT

Metalized heatprotection (C4)
Part number: 12008 41130 021 15 (AW-1/Y)
Garment weight: approx. 1,330 g

Ergonomic sleeves, width adjustable via snap fastener inside • inner collar with flame-retardant cotton lining • front with covered hook&loop fastener FR • with underarm and back ventilation • FR seams • walking slit • length: approx. 130 cm. Further available lengths: 110 cm/120 cm/140 cm.
- JACKET

Metalized heatprotection (C3)
Part number: 12014 11180 020 15 (CK-12/Z)
Garment weight: approx. 710 g

Ergonomic sleeves, width adjustable via snap fastener inside • inner collar with flame-retardant cotton lining • front with covered hook&loop fastener FR • with underarm and back ventilation • FR seams • length: approx. 80 cm. Further available lengths: 90 cm/100 cm.

TEMPEX®-TREME HEAT

The aluminized heat protection clothing is complemented by compatible face and head protection, individually combinable. These include head protection hoods in various designs – also with ventilation openings – as well as the matching visors and heat protection glasses.



MAT. NO.	MATERIAL	COLOUR	COLOUR NO.	COLOUR NAME		REGULAR SIZES
12003	KF-3/Z		15	silver	EN ISO 11612 A1/B1/C3/D3/E3/F1	One size
12008	AW-1/Y				EN ISO 11612 A1/B1/C4/D3/E3/F2	

PROTECTIVE HOOD, CHEST PROTECTION

Accessories
Part number: 12003 7H007 000 15 (KF-3/Z)
Garment weight: approx. 508 g

Shaped shoulder and chest area • elastic band in back • protective glass frame made of aluminum • storage loop • FR seams • approx. 600 mm long from the edge of the helmet (front and back side) • fits with helmets Phenol (item 90021 7Z006 011 68) and Poly (item 90022 7Z006 012 10) • fits with heat protection glass • sized 100 x 220 mm.

PROTECTIVE HOOD

Accessories
Part number: 12003 7H007 001 15 (KF-3/Z)
Garment weight: approx. 297 g

Elastic band in back • protective glass frame made of aluminum • storage loop • FR seams • approx. 150 mm long (back side) • fits with helmets Phenol (item 90021 7Z006 011 68) and Poly (item 90022 7Z006 012 10) • fits with heat protection glass • sized 100 x 220 mm.

PROTECTIVE HOOD, CHEST PROTECTION

Accessories
Part number: 12008 71001 002 15 (AW-1/Y)
Garment weight: approx. 415 g

Shaped shoulder and chest area • with two covered ventilation openings at the sides • elastic band in back • protective glass frame made from aluminium • storage loop • all seams with FR thread • side height approx. 50 cm from storage loop across shoulder • compatible with Phenol (item 90021 7Z006 011 68) and Poly helmet (item 90022 7Z006 012 10) • compatible with heat protection glass in size 100 x 220 mm.



TEMPEX®-TREME HEAT

Our aluminised heat protective clothing is complemented by compatible face and head protection as well as additional protection for the arms. Helmet cover, face shield and sleeve cuff can be combined individually – as well as the matching visors and heat protection glasses.

21 TO WEAR

HEAT,
SPASHES &
WELDING



HELMET COVER

Accessories

Part number: **12003 7H009 000 15 (KF-3/Z)**

Garment weight: approx. 184 g

Shaped neck protection • side snap fasteners for attaching a face shield • FR seams • fits with helmets Phenol (item 90021 7Z006 011 68) and Poly (item 90022 7Z006 012 10) • fits with face guard (item 12008 71010 000 15).

One size

■ silver

Standards:



EN ISO 11612
A1/B1/C3/D3/E3/F1

FACE GUARD

Accessories

Part number: **12008 71010 000 15 (KF-4/Z)**

Garment weight: approx. 283 g

Protective glass frame made of aluminum • bendable wire for adjusting to head shape • side snap fasteners for attaching neck protection • FR seams • fits with helmet cover (item 12003 7H009 000 15) • fits with heat protection glass sized 100 x 220 mm.

One size

■ silver

Standards:



EN ISO 11612
A1/B1/C4/D3/E3/F1

CUFFS

Accessories

Part number: **12003 7H003 000 15 (KF-3/Z)**

Cuff made of aluminised Aramide • elastic band on both ends • length approx. 430 mm.

One size

■ silver

Standards:



EN ISO 11612
A1/B1/C3/D3/E3/F1

21 TO WEAR

All other versions are available via our 21 TO WEAR® high-speed delivery service. For more information see the model overview on page 214/215.



Elastic band on both ends

PROTECTIVE HELMET PHENOL

Accessories

Part number: **90021 7Z006 011 68**

Straight shell • manufactured from phenolic resin fabric • 6-point webbed harness with genuine leather sweatband, foam cushion band and lock ratchet • anti-static, for use in hot zones (metal splashing), temperatures from -30 °C up to +150 °C • fits with all head protection hoods • fits with Flip-Up Mounting (item 90002 7Z019 004 15).

One size (51-64 cm)

■ gold

PROTECTIVE HELMET POLY

Accessories

Part number: **90022 7Z006 012 10**

Straight shell with rain gutter • manufactured from fibreglass-reinforced polycarbonate • 6-point webbed harness with genuine leather sweatband, foam cushion band and lock ratchet • for use in hot zones and electrical insulation (1000 V), temperatures from -30 °C up to +150 °C • fits with all head protection hoods • fits with Flip-Up Mounting (item 90002 7Z019 004 15).

One size (51-64 cm)

□ white

FLIP-UP MOUNTING

Accessories

Part number: **90002 7Z019 004 15**

For fastening face guard to protective helmet • with 2 flap closures and a plastic-coated suspension spring • fits with helmets Phenol (90021 7Z006 011 68) and Poly (90022 7Z006 012 10) • fits with all all-around visors sized 500 x 250 mm.

One size

■ silver

BOCHUM GOGGLES

Accessories

Part number: **90001 7Z024 000 15**

Aluminum edging • blackened wire mesh inside • protective glass holder • fits with Flip-Up Mounting (item 90002 7Z019 004 15) • fits with heat protection glass sized 120 x 60 mm.

■ silver

BOCHUM GOGGLES WITHOUT GLASS HOLDER

Accessories

Part number: **90001 7Z024 001 15**

Aluminum edging • blackened wire mesh inside • fits with Flip-Up Mounting (item 90002 7Z019 004 15).

■ silver

Standards:



EN 397



Standards:



EN 397

EN 50365



Standards:



EN 166



The aluminized heat protection clothing is complemented by compatible face and head protection, individually combinable. These include head protection hoods in various designs – also with ventilation openings – as well as the matching visors and heat protection glasses.

HEAT,
SPASHES &
WELDING



PROTECTIVE WIRE SCREEN

Accessories

Part number: **90001 7Z025 001 15**

Crimped edge • blackened wire mesh inside • fits with Flip-Up Mounting (item 90002 7Z019 004 15) • shape: 500 x 300 mm.

 silver



FURNACE VIEWING GLASS, CURVED

Accessories

Part number: **90005 7Z023 004 48**

Curved laminated safety glass • special blue-coloured filter • colour-correcting • protection from radiant heat • protection from radiant heat • protection from short wave IR radiation • protection level 4-7 A-DIN • fits with head protection hoods (item 12003 7H007 000 15 or 12003 7H007 001 15) • fits with Face Guard (item 12008 71010 000 15) • shape: 100 x 220 mm.

 dark blue



LAMINATED SAFETY GLASS, GOLD

Accessories

Part number: **90006 7Z023 000 68**

Curved laminated safety glass • gold-plated • protection from radiant heat • fits with head protection hoods (item 12003 7H007 000 15 or 12003 7H007 001 15) • fits with Face Guard (item 12008 71010 000 15) • shape: 100 x 220 mm.

 gold
Standards:



POLYCARBONATE SCREEN GREEN, GOLD

Accessories

Part number: **90018 7Z023 002 68**

Curved laminated safety screen • gold-plated • protection from radiant heat • fits with head protection hoods (item 12003 7H007 000 15 or 12003 7H007 001 15) • fits with Face Guard (item 12008 71010 000 15) • shape: 100 x 220 mm.

 gold
Standards:



ALL-AROUND VISOR CLEAR

Accessories

Part number: **90004 7Z010 002 00**

Clear, flexible polycarbonate plate • rounded shape: 500 x 250 x 1 mm • fits with Flip-Up Mounting (item 90002 7Z019 004 15).

 neutral
Standards:



ALL-AROUND VISOR CLEAR, GOLD

Accessories

Part number: **90004 7Z010 000 68**

Clear, flexible polycarbonate plate • gold-plated • protection from radiant heat (protection level 4-4) • rounded shape: 500 x 250 x 1 mm • fits with Flip-Up Mounting (item 90002 7Z019 004 15).

 gold
Standards:



ALL-AROUND VISOR GREEN, GOLD

Accessories

Part number: **90004 7Z010 001 33**

Green-tinted, flexible polycarbonate plate • gold-plated • protection from radiant heat (Protection level 4-5) • rounded shape: 500 x 250 x 1 mm • fits with Flip-Up Mounting (item 90002 7Z019 004 15).

 green
Standards:




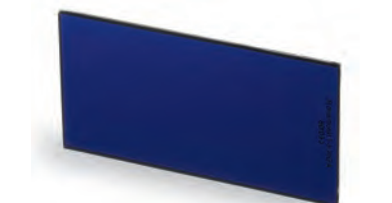
FURNACE VIEWING GLASS WITH COLOURED FILTER

Accessories

Part number: **90005 7Z023 001 48**

Composite safety glass • special blue-coloured filter • colour-correcting • protection from radiant heat • protection from blinding light • protection from short-term IR radiation • protection level 4-7 A-DIN • fits with Bochum Goggles (item 90001 7Z024 000 15) • shape: 120 x 60 mm.

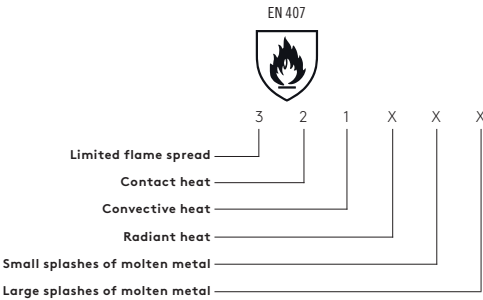
 dark blue



Our new heat protection gloves are available in different variants, lengths and sizes and offer protection against thermal risks according to EN ISO 407 as well as mechanical hazards according to EN 388 thanks to selected material combinations and insulation layers.

Protective gloves against thermal risks EN 407:2020

Protective gloves tested according to this standard protect against heat and/or fire. The actual protective performance depends on the test performed during certification and the level of performance achieved, with 1 being the lowest and 4 the highest. "X" means not tested.



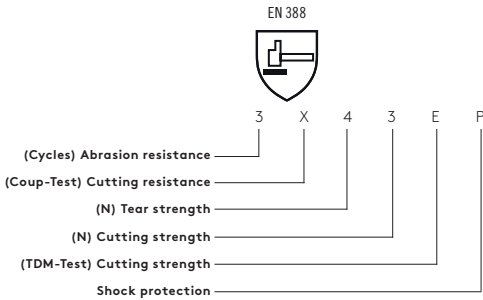
Test	Performance Level			
	1	2	3	4
Combustion behavior				
Afterflame time (in sec.)	< 20	< 10	< 3	< 2
Afterglow time (in sec.)	n.r.	< 120	< 25	< 5
Contact heat				
Contact temperature Tc (in °C)	100	250	350	500
Threshold t1 (in sec.)	> 15	> 15	> 15	> 15
Convective Heat				
Heat Transfer Index HTI (in sec.)	> 4	> 7	> 10	> 18
Radiant heat				
Radiant heat transfer t24 (in sec.)	> 7	> 20	> 50	> 95
Small splashes of molten metal				
Number of splashes	> 10	> 15	> 25	> 35
Large splashes of molten metal				
Liquid iron splashes (in g)	30	60	120	200

4 means the highest and 1 means the lowest performance level. n.r. means "no requirement".
X means "not tested". 0 means "below the minimum requirements".

For higher durability in contact heat, we rely on selected materials and different insulation layers, especially in the palm area, so that protection against heat up to 500 °C can be reached there. High resistance to radiant heat and splashes of molten metal is achieved primarily through the use of aluminised materials.

Protective gloves against mechanical risks EN 388:2016

This standard specifies the test methods and performance requirements of protective gloves against mechanical risks. The specific protective performance depends on which test is carried out during certification and which performance level is achieved, 1 being the lowest and 5 the highest performance level. "X" means not tested.



Test	Performance Level				
	1	2	3	4	5
Abrasion resistance (Number of cycles)	100	500	2000	8000	
Cutting resistance (Factor)	1,2	2,5	5,0	10,0	20
Tear strength (in newton)	10	25	50	75	
Cutting strength (in newton)	20	60	100	150	

5 means the highest and 1 means the lowest performance level.
X means "not tested". 0 means "below the minimum requirements".

The choice of materials in the palm has a decisive influence on the mechanical properties and wear. The abrasion resistance and tear resistance are the focus of our requirements.

METALLISED HEAT PROTECTION GLOVES UP TO 500 °C CONTACT HEAT

ITEM			MATERIAL LAYER CONSTRUCTION			LENGTH	SIZES
			UPPER	ISOLATION	LINING		
1			Polyacrylnitril (Preox), Aramide, chrome split leather	Half wool non-woven	Molleton	approx. 410 mm	11
2	EN ISO 407 4 1 3 3 4 4	EN 388 2 X 4 X X	Polyacrylnitril (Preox), Aramide, Para-Aramide	Half wool non-woven Preox-Felt	Molleton	approx. 450 mm	
3			Polyacrylnitril (Preox), Aramide, Para-Aramide	Half wool non-woven Preox-Felt	Molleton	approx. 440 mm	



3-FINGER GLOVES 410 + LEATHER
Accessories
Part number: 12015 71005 000 2271

Two coloured • thumb and palm of hand with 3-layer construction • leather wedge between index and middle finger • good palm of hand isolation • very good radiant heat protection • high abrasion resistance in palm of hand.

3-FINGER GLOVES 450 + ARAMIDE
Accessories
Part number: 12015 71003 001 2269



Two-coloured • thumb and palm of hand 4-layer construction • very good palm of hand isolation • very good radiant heat protection • good abrasion resistance in palm of hand.

MITTENS 440 + ARAMIDE
Accessories
Part number: 12015 71004 002 2269

Two-coloured • thumb and palm of hand 4-layer construction • very good palm of hand isolation • very good radiant heat protection • good abrasion resistance in palm of hand.

Our new heat protection gloves are available in different variants, lengths and sizes and offer protection against thermal risks according to EN ISO 407 as well as mechanical hazards according to EN 388 thanks to selected material combinations and insulation layers.

METALLISED HEAT PROTECTION GLOVES UP TO 250 °C CONTACT HEAT

ITEM			MATERIAL LAYER CONSTRUCTION			LENGTH	SIZES
			UPPER	ISOLATION	LINING		
1	EN ISO 407 4 1 3 2 4 4	EN 388 1 X 2 X X	Aramide, Sebatan leather	–	Molleton	approx. 365 mm approx. 385 mm	11 12
2			Aramid, Sebatan leather	–	Molleton	approx. 435 mm approx. 455 mm	11 12
3	EN ISO 407 4 2 3 2 4 4		Aramide, Para-Aramide	–	Molleton	approx. 380 mm approx. 400 mm	11 12
4			Aramide, Para-Aramide	–	Molleton	approx. 465 mm approx. 485 mm	11 12



5-FINGER GLOVES 370 + LEATHER

Accessories
Part number: 12008 71011 002 2268

5-FINGER GLOVES 440 + LEATHER

Accessories
Part number: 12008 71011 001 2268

Two-coloured • palm and fingers as well as pulse reinforcement made of sebatan leather • very good protection against radiation heat • high abrasion resistance and tear resistance of the palm • very good dexterity and high wearing comfort.

5-FINGER GLOVES 390 + ARAMIDE



Accessories
Part number: 12008 71012 003 2269

5-FINGER GLOVES 470 + ARAMIDE

Accessories
Part number: 12008 71012 002 2269

Two-coloured • palm and fingers made of para-aramide fabric • pulse reinforcement made of sebatan leather • good thermal insulation of the palm • very good protection against radiant heat • high tear resistance of the palm • very good dexterity and high wearing comfort.

HEAT PROTECTION GLOVES UP TO 500 °C CONTACT HEAT

ITEM			MATERIAL LAYER CONSTRUCTION			LENGTH	SIZES
			UPPER	ISOLATION	LINING		
1	EN ISO 407 4 2 3 2 X X	EN 388 2 X 4 X X	Para-Aramide	Half wool non-woven	Molleton	approx. 375 mm approx. 395 mm	11 12
2			Para-Aramide	Half wool non-woven	Molleton	approx. 460 mm approx. 480 mm	11 12
3	EN ISO 407 4 3 3 2 X X	EN 388 2 X 4 X X	Para-Aramide	Half wool non-woven	Molleton	approx. 390 mm	11
4			Glass/Aramide/PBI, Para-Aramide	Half wool non-woven Preox-Felt	Molleton	approx. 390 mm	11



5-FINGER GLOVES 370, ARAMIDE

Accessories
Part number: 01267 71012 001 20

5-FINGER GLOVES 470, ARAMIDE

Accessories
Part number: 01267 71012 000 20

Single-coloured • finger and palm with 3-layer construction • good thermal insulation of the palm • very high mechanical strength • good abrasion resistance • very good dexterity.

MITTENS GLOVE 390, ARAMIDE

Accessories
Part number: 01267 71007 000 20

Single-coloured • 3-layer construction • thumb inserted at the side • can be worn on both sides • good thermal insulation • very high mechanical load capacity • good abrasion resistance.

MITTENS 390 PBI/ARAMIDE

Accessories
Part number: 01191 71013 000 20

Two-coloured • hand and thumb with 4-layer construction • thumb inserted at the side • can be worn on both sides • very good thermal insulation in the hand area • good mechanical strength.

TEMPEX®-TREME HEAT

The heat protection equipment is rounded out by matching footwear with various aluminized gaiter models and a foundry boot certified to the EN ISO 20349-1:2017 foundry standard for molten iron and aluminum.



ITEM	COLOUR	COLOUR NO.	COLOUR NAME	MATERIAL		REGULAR SIZES
1,2						One size
3		15	silver	Aramide/Glass	EN ISO 11612 A1/B1/C3/D3/E3/F2 (Partial body protection)	1 (= up to size 43) 2 (= from size 44)

GAITERS, HOOK & LOOP FASTENING

Accessories
Part number: 12015 71008 000 15

Flame-inhibiting hook&loop fastener • adjustable width • approx. 38 cm high.

Sale unit: 1 pair



GAITERS, SNAP FASTENING

Accessories
Part number: 12015 71008 001 15

Snap fasteners closures • adjustable width • approx. 38 cm high.

Sale unit: 1 pair



SPRING GAITERS

Accessories
Part number: 12015 71009 000 15

2 covered, vertical springs in the legs • vamp with instep spring • approx. 35 cm high.

Sale unit: 1 pair



Nitrile rubber soles with heat-insulated substructure



Double snap fasteners closure

FOUNDRY BOOTS

Accessories
Part number: 14003 76025 000 2276

Aluminised upper leather (the metallic surface reflects heat radiation) • full calf leather • bootleg constructed like roof tiles • holding rivets • Kevlar® stitching thread • quick fastener • steel cap • aluminised inlay sole • nitrile bearing sole type MÜNCHEN ROT, approx. 300 °C contact heat resistant • approx. 28 cm high.

Sizes: 39–48 · Sale unit: 1 pair

white/grey

Standards:



EN ISO 20349-1