

Brief information about standards and markings for clothing that appear in our catalogue



EN ISO 11612 - CLOTHING TO PROTECT AGAINST HEAT AND FLAME

Clothing approved under the EN ISO 11612 standard provides protection while working in hot environments where there is a risk of sudden contact with a small flame. The clothing also provides various degrees of protection against heat convection and radiant heat for a limited time and intensity. The standard does not apply for welding operations or equipment for fire-fighters.

Coding

A, Limited flame spread.

Classes:

A1 and A2. No edge ignition, no burn holes, no molten debris and no flaming. After glow time shall be less than 2 seconds.

Tests are conducted by applying the flame from the edge of the fabric and from above. A1 is surface ignition and A2 is edge ignition.

B, Convective heat:

B1, B2 and B3. The HTI (Heat Transfer Index) indicates how many seconds it takes to attain a temperature rise of 24°C. Highest class B3.

C, Radiant heat:

C1, C2, C3 and C4. The number of seconds it takes for radiant heat to cause the temperature to rise by 24°C. Highest class C4

D, Molten aluminium splash:

D1, D2 and D3. A PVC membrane is attached to the reverse of the fabric sample and the minimum amounts of molten aluminium for each class are then splashed on the sample. The PVC membrane must be undamaged after the test has been carried out. The highest class is D3.

D, Molten iron splash:

E1, E2 and E3. A PVC membrane is attached to the reverse of the fabric sample and the minimum amounts of molten iron for each class are then splashed on the sample. The PVC membrane must be undamaged after the test has been carried out. The highest class is E3.

F, Contact heat.

F1, F2 and F3. Indicates the resistance of the fabric in seconds. The fabric shall not ignite or shrink due to temperatures of up to 250°C. (This code was not included in EN 531)

Some design requirements: - The garment must cover the whole upper body, neck, arms and legs. Jackets/tops must overlap with trousers/bottoms when the body is moving, e.g. when stretching or kneeling.

The following also apply for codes D and E: - trouser legs and sleeves must not be turned up.

- all pockets must have flaps that are at least 20 mm wider than the actual pocket opening. This rule does not apply to side pockets on trousers with openings placed at an angle of less than 10° to the side seam.

Other details: - Codes A, B and C are mandatory, while codes D, E and F are optional requirements.

- Specific tests are conducted to ensure that fabrics and seams meet the requirements for strength and dimensional stability to washing.

- CARE INSTRUCTIONS: Follow the washing instructions on the label in your garment. Close zips and buttons before washing the garment. Only use a synthetic detergent. Check the garment after washing and drying before use.



EN ISO 11611 - PROTECTIVE CLOTHING FOR USE IN WELDING AND ALLIED PROCESSES

(Protective clothing for use in welding and allied processes)

Clothing approved under the EN ISO 11611 standard provides protection for those carrying out welding operations. There are two classes - Class 1 and Class 2. (See the comparison below)

Coding

Molten metal:

Class 1: 15 drops may cause a temperature rise of 40° on the fabric's reverse side without ignition

Class 2: 25 drops may cause a temperature rise of 40° on the fabric's reverse side without ignition

Heat transmission: Class 1: At least 7 sec, 20 kW/m² heat flow

Class 2: At least 16 sec, 20 kW/m² heat flow

Some design requirements:

- The garment must cover the whole upper body, neck, arms and legs. Jackets/tops must overlap with trousers/bottoms when the body is moving, e.g. when stretching or kneeling.

- all pockets must have flaps that are at least 20 mm wider than the actual pocket opening. This rule does not apply to side pockets on trousers with openings placed at an angle of less than 10° to the side seam. A ruler pocket with an opening of 75 mm or less may be placed behind the side seam.

- trouser legs and sleeves must not be turned up.

Other:

- Specific test methods are used to ensure that fabrics and seams meet the requirements for wear, tear and washing.



EN 1149-5 - PROTECTIVE CLOTHING - ELECTROSTATIC PROPERTIES - Part 5: Material performance and design requirements (Protective clothing - Electrostatic properties - Part 5: Material performance and design requirements)

Clothing approved under the EN 1149-5 standard provides protection against the danger caused by static electricity.

Some design requirements:

- Buttons, zips and other fastenings must be covered with the anti-static fabric.

Other:

- When the EN-1149-1 standard or the EN 1149-3 standard is mentioned, this is the designation of fabrics that meet the standard's requirements for electrostatic properties.

- The use of protective footwear marked with ESD is recommended.



EN 61482-1-2/IEC 61482-2 - LIVE WORKING – PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF AN ELECTRIC ARC
(Live working - Protective clothing against the thermal hazards of an electric arc. Part 2: Requirements.

EN 61482-1-2/IEC 61482-2 is the first European standard covering protective clothing against electric arcs
There are two classes (see the comparison below).

Coding

Class 1: Equivalent to 4 kA, 400 volt for 500 ms. The material or garment must not burn for more than 5 seconds, melt through or form holes larger than 5 mm.

Class 2: Equivalent to 7 kA, 400 volt for 500 ms. The material or garment must not burn for more than 5 seconds, melt through or form holes larger than 5 mm.

Some design requirements:

- Buttons, zips and other fastenings must be covered by the electric arc resistant fabric.

Other:

- IEC61482-2 requires garments to be sewn with flame resistant threads. This is not a requirement for garments complying with the EN 61482-1-2 standard.

**ATPV
XX.X
Cal/cm²**

ATPV (Arc Thermal Protective Value)

ATPV indicates that the garment/fabric has been arc flash tested according to the EN 61482-1-1/ASTM F1959 standard and provides protection against incident energy, the value of which is given in units of calories per square centimetre. The ATPV shows the lowest rating at which the energy of the electric arc causes the fabric to break open. At this value, there is a 50% probability that sufficient heat will transfer through the garment/fabric to cause a second-degree burn injury based on the Stoll Curve. The higher the value, the better the protection provided by the garment/fabric. When working in an environment where there is the possibility of being exposed to an arc flash, it is important to wear several layers of clothing, e.g. with a flame-resistant base layer, to provide strong protection.



EN 13034 Type PB [6] PROTECTIVE CLOTHING AGAINST LIQUID CHEMICALS - PERFORMANCE REQUIREMENTS FOR CHEMICAL PROTECTIVE CLOTHING OFFERING LIMITED PROTECTIVE PERFORMANCE AGAINST LIQUID CHEMICALS
(Type 6 and Type PB [6] equipment)

The garment should be used together with chemical resistant gloves, boots and other garments that offer protection according to the EN 13034 standard. The protective clothing can be used where there is a risk of minor exposure to chemical splashing/splattering, where a full chemical barrier is not required. Specialist industrial laundering is required for reapplication of the garment; reapplication should be performed after 5 washes to maintain protection. Type PB[6] garments provide partial body protection and have not been subjected to a whole-suit test (5.2). The material has been tested against the following chemicals in accordance with the EN 13034 standard: Sulphuric acid, H2SO4 30%, Sodium Hydroxide, NaOH 10%, O-Xylene, Butan-1-ol. For information and results for repellency and penetration of liquid chemicals (index 1-3, highest level 3) for each garment, please see the information inside the garment.

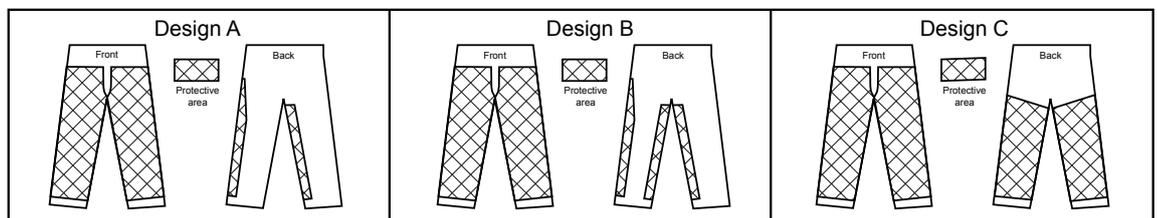
Test	Method	According to the required standard EN 13034:2005
The following fabric properties have been tested (levels 1-6, with 6 being the highest level):		
Abrasion resistance	EN 530-2	Level 1 > 10 cycles
Tearing strength (Trapezoid procedure)	ISO 9073-4	Level 1 > 5N
Breaking strength	EN ISO 13934-1	Level 1 > 30N
Puncture resistance	EN 863	Level 1 > 5N
Seam strength	EN ISO 13935-2	Class 1 > 30N



EN 381-5 - CHAIN SAW PROTECTION, REQUIREMENTS FOR LEG PROTECTORS

Garments approved under the EN 381-5 standard are intended for use during logging/chainsaw operations. There are three classes where the classification describes how the trouser protection withstands the speed of the chainsaw. Choice of design: Designs A and B both cover the front of the legs and are intended for use in normal logging work by professional foresters who are highly-trained and knowledgeable in the field. However, designs A and B differ with respect to the protection on the inside of the leg. See the diagram. Design C covers the whole leg and is intended for use by persons who do not normally work with chainsaws or extraordinary situations, e.g. work in trees. Make sure that the chainsaw protection in the trousers overlaps the chainsaw protection in the footwear.

Klass 1: 20 m/s
Klass 2: 24 m/s
Klass 3: 28 m/s





EN ISO 20471/EN 471 - HIGH VISIBILITY PROTECTIVE CLOTHING FOR PROFESSIONAL USE - Test methods and requirements. Certified high-visibility garments conform to the requirements of the EN 471 and EN ISO 20471 standards. These stipulate the surface area for reflective and fluorescent materials, and the luminance and colourfastness of the fabrics. There are also strict design requirements regulating the placing of reflectors, fluorescent material, etc. The safety classification (1-3) for area and reflective material is stated next to the symbol inside the garment, with 3 being the highest class.

Minimum area requirements for approval under EN 471/EN ISO 20471	CLASS 1	CLASS 2	CLASS 3
High-visibility fabric/fluorescent area	0.14 m ²	0.50 m ²	0.80 m ²
Reflective	0.10 m ²	0.13 m ²	0.20 m ²
Combined background/reflective	0.20 m ²	-	-

Some design requirements:

- The areas shown in the chart above are calculated for the smallest size of each model.
- The fluorescent material must go all the way round the body, arms and legs.
- The lower reflective strip must be at least 5 cm from the bottom of the garment. There must be at least 5 cm between the reflective strips.
- If a fabric in a contrasting colour is used, there must be about the same amount of this fabric on the front and back of the garment.

Other:

- A combination of, for example, trousers in Class 2 with a jacket in Class 1 does not automatically give Class 3.
- There are certain differences in design requirements between EN 471 and EN ISO 20471. The EN ISO 20471 standard also requires the fabric to pass the luminance tests after being washed at least five times.



EN 343 - PROTECTIVE CLOTHING - PROTECTION AGAINST BAD WEATHER

This standard specifies the requirements for clothing designed to give protection against bad weather. The standard requires tests to be conducted on fabrics and seams. The values next to the umbrella symbol indicate the waterproofing (class 1-3) and the water vapour permeability (class 1-3) of the garment. Class 3 indicates the best performance.



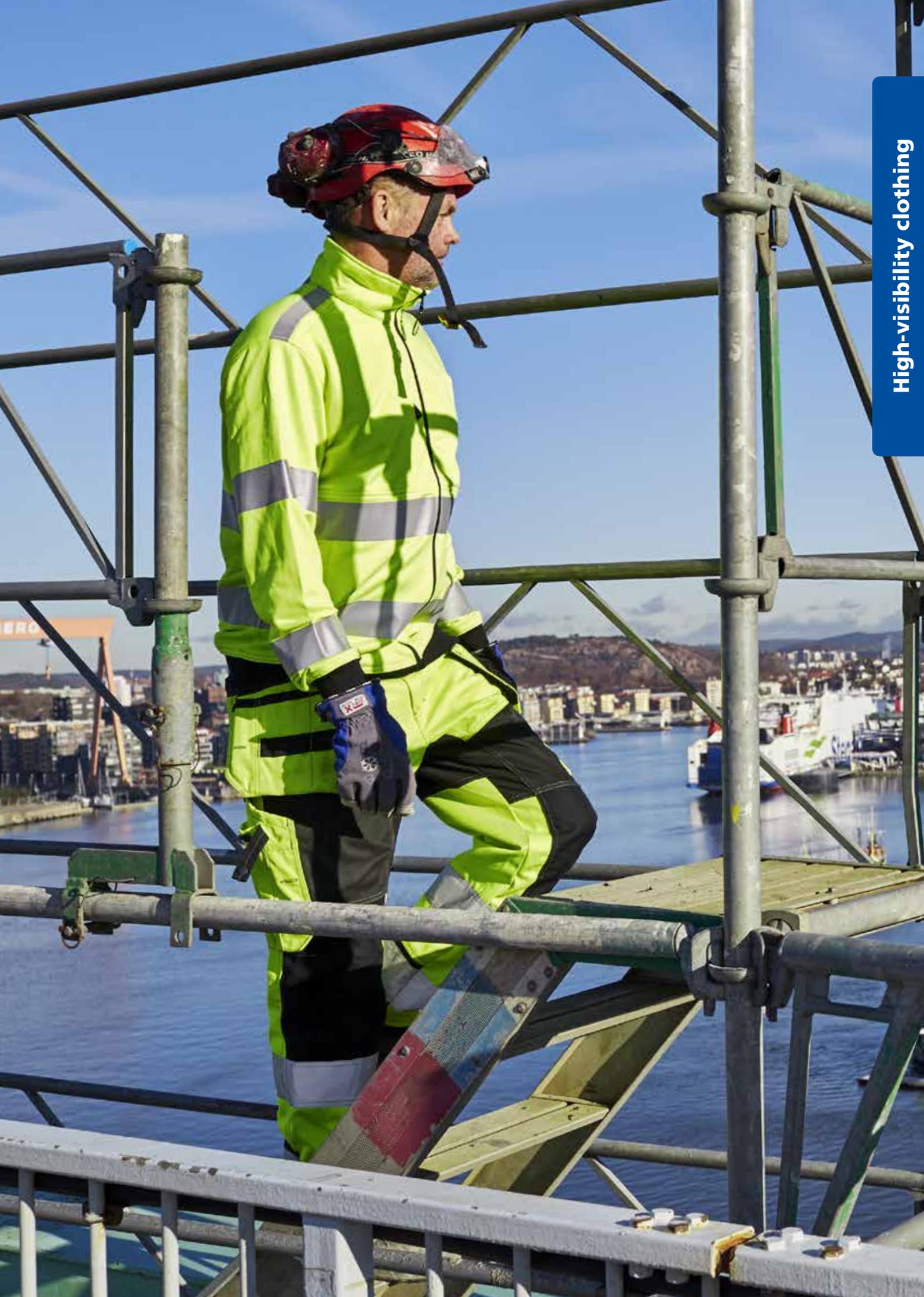
EN 342 - PROTECTIVE CLOTHING - PROTECTION AGAINST COLD

Clothing approved under the EN 342 standard provides protection against cold. The definition of cold is, according to the standard, environments with temperatures below -5°C. Requirements relating to thermal insulation (indicated as mK/W, the higher the better), air permeability (class 1-3 where 3 is the best) and water (optional).

OEKO-TEX® STANDARD 100

Björnkärläders continues its environmental work by certifying its garments in line with the requirements of the Oeko-Tex standard. The Oeko-Tex® Standard 100 label ensures the human ecological quality of a product. Certified garments are manufactured from materials and components that have been inspected for chemical content in line with the Oeko-Tex testing system. To find out which garments are certified under the Oeko-Tex Standard, please visit our website: www.grolls.se





High-visibility clothing

High-visibility clothing



New stretch trousers from Björnkläder



Carpenter trousers stretch, class 2 **New!**

Trousers with stretch fabric at the crotch and rear. Utility pockets with compartments for tools and pens. Reinforced pockets, knees and ankles. Safety pocket with zip on left utility pocket. D-ring, key clip, ID card holder hidden under the right-hand utility pocket. Double hammer loops. Side pockets and back pockets. Thigh pockets with knife button, pockets for ruler, pens and mobile phone. Flap on left thigh pocket. Zip-up safety pocket. Knee pad pouches (to take pads 972290 and 972292).

Fabric: 80% polyester 20% cotton. Oil, grease, dirt and water-repellent. Stretch 91% polyester 9% elastane (reinforced with 100% polyamide).

Weight: 310 g. Wash at: 60°C.

Size: 44 - 64, 88 - 124, 144 - 158

CE: EN ISO 20471 class 2

OrderNo: **248043711** Yellow/Navy
248033711 Yellow/Black
248033718 Orange/Black



Carpenter trousers class 2

Trousers with pockets for tools and pens. Zip on left utility pocket. Reinforced pockets, knees and ankles. Zip-up pocket on left leg. D-ring, key clip, ID card holder hidden under the right-hand utility pocket. Side pockets. Double hammer loops. Thigh pockets with knife button, ruler pocket, mobile phone pocket, pen pockets, flap on left thigh pocket. Knee pad pouches (to take pads 972290 and 972292).

Fabric: Red 85% polyester 15% cotton, other 80% polyester 20% cotton. Oil, grease, dirt and water-repellent (reinforced with 100% polyamide. Contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C .

Size: 44 - 64, 88 - 124, 144 - 158

CE: EN ISO 20471 class 2

OrderNo: **254043711** Yellow/Navy
254033711 Yellow/Black
254033718 Orange/Black
254033722 Red/Black



Carpenter trousers class 1

Trousers with pockets for tools and pens. Zip on left utility pocket. Reinforced pockets, knees and ankles. Zip-up pocket on left leg. D-ring, key clip, ID card holder hidden under the right-hand utility pocket. Side pockets. Double hammer loops. Thigh pockets with knife button, ruler pocket, mobile phone pocket, pen pockets, flap on left thigh pocket. Knee pad pouches (to take pads 972290 and 972292).

Fabric: 65% polyester 35% cotton, (reinforced with 100% polyamide. Red contrast panel 85% polyester 15% cotton, other contrast panels 80% polyester 20% cotton. Oil, grease, dirt and water-repellent). Weight: 300 g. Wash at: 85°C .

Size: 44 - 64, 88 - 124, 144 - 158

CE: EN ISO 20471 class 1

OrderNo: **244011569** Navy/Yellow
244011599 Black/Yellow
244021599 Black/Orange
244001599 Black/Red





Trousers stretch class 2 **New!**

Trousers with stretch fabric at the crotch and rear. Reinforced knees and ankles. D-ring and key clip Double hammer loops. Side pockets and back pockets. Thigh pockets with knife button, pockets for ruler, pens and mobile phone. Flap on left thigh pocket. Zip-up safety pocket. ID card holder in left thigh pocket. Knee pad pouches (to take pads 972290 and 972292).

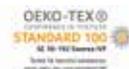
Fabric: 80% polyester 20% cotton. Oil, grease, dirt and water-repellent. Stretch 91% polyester 9% elastane (reinforced with 100% polyamide).

Weight: 310 g. Wash at: 60°C.

Size: 44 - 64, 88 - 124, 144 - 158

CE: EN ISO 20471 class 2

OrderNo: **249043711** Yellow/Navy
249033711 Yellow/Black
249033718 Orange/Black



Trousers class 2

Trousers with side pockets. Reinforced pockets, knees and ankles. Zip-up pocket on left leg. D-ring, key clip, ID card holder inside the left thigh pocket. Double hammer loops. Thigh pockets with knife button, ruler pocket, mobile phone pocket, pen pockets, flap on left thigh pocket. Knee pad pouches (to take pads 972290 and 972292).

Fabric: Red 85% polyester 15% cotton, other 80% polyester 20% cotton. Oil, grease, dirt and water-repellent (reinforced with 100% polyamide). Contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C.

Size: 46 - 62, 92 - 120, 146 - 156

CE: EN ISO 20471 class 2

OrderNo: **252043711** Yellow/Navy
252033711 Yellow/Black
252033718 Orange/Black
252033722 Red/Black



Trousers class 1

Trousers with side pockets. Reinforced pockets, knees and ankles. Zip-up pocket on left leg. D-ring, key clip, ID card holder inside the left thigh pocket. Double hammer loops. Thigh pockets with knife button, ruler pocket, mobile phone pocket, pen pockets, flap on left thigh pocket. Knee pad pouches (to take pads 972290 and 972292).

Fabric: 65% polyester 35% cotton, (reinforced with 100% polyamide. Red contrast panel 85% polyester 15% cotton, other contrast panels 80% polyester 20% cotton. Oil, grease, dirt and water-repellent). Weight: 300 g. Wash at: 85°C.

Size: 44 - 64 (navy/yellow 42 - 64), 92 - 120, 144 - 158

CE: EN ISO 20471 class 1

OrderNo: **242011569** Navy/Yellow
242011599 Black/Yellow
242021599 Black/Orange
242001599 Black/Red





* Sizes 44-46 have fewer black details

Carpenter shorts class 2

Shorts with utility pockets for tools and pens. Zip on left utility pocket. Reinforced pockets. Zip on left thigh pocket. D-ring, key clip, ID card holder hidden under the right-hand utility pocket. Side pockets. Double hammer loops. Thigh pockets with knife button, pockets for ruler, pens and mobile phone. Flap on left thigh pocket. Zip-up pocket.

Fabric: Red 85% polyester 15% cotton, other 80% polyester 20% cotton. Oil, grease, dirt and water-repellent (reinforced with 100% polyamide. Contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C .

Size: 44 - 62 *
CE: EN ISO 20471 class 2

OrderNo: **036033711** Yellow
036033718 Orange
036033722 Red



Pirate trousers class 2

Trousers with pockets for tools and pens. Zip on left utility pocket. Reinforced pockets and knees. Zip-up pocket on left leg. D-ring, key clip, ID card holder hidden under the right-hand utility pocket. Side pockets. Double hammer loops. Thigh pockets with knife button, ruler pocket, mobile phone pocket, pen pockets, flap on left thigh pocket. Knee pad pouches (to take pads 972291 and 972293).

Fabric: Red 85% polyester 15% cotton, other 80% polyester 20% cotton. Oil, grease, dirt and water-repellent (reinforced with 100% polyamide. Contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C .

Size: 44 - 62
CE: EN ISO 20471 class 2

OrderNo: **256043711** Yellow/Navy
256033711 Yellow/Black
256033718 Orange/Black
256033722 Red/Black



Dungarees class 2

Dungarees with adjustable elastic straps. Utility pockets for tools and pens. Chest pockets, the right-hand pocket with flap. Knife button and knife loop on left chest pocket. Zip on left utility pocket. Reinforced pockets, knees and ankles. D-ring, key clip, ID card holder hidden under the right-hand utility pocket. Side pockets. Double hammer loops. Thigh pockets with knife button, ruler pocket, mobile phone pocket, pen pockets, flap on left thigh pocket. Extra pocket with zip on left thigh pocket. Knee pad pouches (to take pads 972290 and 972292).

Fabric: Red 85% polyester 15% cotton, other 80% polyester 20% cotton. Oil, grease, dirt and water-repellent (reinforced with 100% polyamide. Contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C .

Size: 44 - 64, 88 - 124
CE: EN ISO 20471 class 2

OrderNo: **154043711** Yellow/Navy
154033711 Yellow/Black
154033718 Orange/Black
154033722 Red/Black





Jacket class 3

Jacket with zip. Chest pockets, right-side pocket with flap and ID card holder. Pen pocket next to the right-hand pocket. Left-side pocket with zip. Zip-up side pockets. D-ring inside the right-hand pocket. Inside pocket. Adjustable cuffs.

Fabric: Red 85% polyester 15% cotton, other 80% polyester 20% cotton. Oil, grease, dirt and water-repellent (contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C .

Size: XS - 4XL
CE: EN ISO 20471 class 3 (XS class 2)

OrderNo: **792043711** Yellow/Navy
792033711 Yellow/Black
792033718 Orange/Black
792033722 Red/Black



Women's jacket class 3

Jacket with zip. Chest pockets, right-side pocket with flap and ID card holder. Pen pocket next to the right-hand pocket. Left-side pocket with zip. Zip-up side pockets. D-ring inside the right-hand pocket. Inside pocket. Adjustable cuffs.

Fabric: 80% polyester 20% cotton. Oil, grease, dirt and water-repellent (contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C .

Size: XS - 3XL
CE: EN ISO 20471 class 3 (XS-S class 2)

OrderNo: **547043711** Yellow/Navy
547033718 Orange/Black



Tool vest class 2 **New colour!**

Vest with utility pockets for tools and pens. Padding over the shoulders, double chest pockets detachable at bottom hem. Right chest pocket with flap, knife button and knife loop on left pocket. Double hammer loops, elasticated belt and ID card holder inside the right-hand utility pocket. Left-hand utility pocket with zip. Double holster pockets as back pockets.

Fabric: 80% polyester, 20% cotton. Oil, grease, dirt and water-repellent (contrast panels 65% polyester 35% cotton). Weight: 300 g. Wash at: 85°C .

Size: M - 4XL
CE: EN ISO 20471 class 2

OrderNo: **445043711** Yellow/Navy
445033718 Orange/Black
445033722 Red/Black



Softshell jacket class 3

Water-repellent, triple-layer jacket. Zip-up sleeve pocket. Zip-up chest pocket on right-hand side. Side pockets. Inside pocket with zip. D-ring inside the right-hand pocket.

Fabric: 90% polyester, 6% polyurethane, 4% elastane. Windproof and waterproof 10,000 mm/4,000 g. Weight: 375 g. Wash at: 40°C.

Size: XS - 3XL
CE: EN 471 class 3.

OrderNo: **932036111** Yellow
932036118 Orange





Triple-layer fleece jacket. Class 3

Windproof fleece jacket. Right chest pocket with zip. Side pockets with zips. D-ring inside the right-hand pocket. Eyelet in right side pocket for mobile phone cable. An eyelet inside the right collar to pull a headphone cord through. Left inside pocket. Drawstring hem and adjustable cuffs.

Fabric: 100% polyester, water-repellent and windproof 5,000 mm/2,000 g. Weight: 325 g. Wash at: 40°C.

Size: XS - 4XL

CE: EN ISO 20471 class 3 (XS class 2)

OrderNo: **942049711** Yellow/Navy
942039711 Yellow/Black
942039718 Orange/Black



Triple-layer fleece jacket. Class 3

Windproof fleece jacket. Mobile phone pocket right chest. Side pockets. The right pocket with zip and D-ring. Left inside pocket. Drawstring hem and adjustable cuffs.

Fabric: 100% polyester, water-repellent and windproof 5,000 mm/2,000 g. Weight: 325 g. Wash at: 40°C.

Size: XS - 3XL

CE: EN ISO 471 class 3 (XS class 2)

OrderNo: **925079711** Yellow
925079718 Orange



Fleece jacket class 3

Fleece jacket with double side pockets. Right pocket with zip and D-ring. Drawstring hem.

Fabric: 100% polyester. Weight: 300 g. Wash at: 60°C.

Size: XS - 4XL

CE: EN 471 class 3 (XS class 2)

OrderNo: **935039711** Yellow
935039718 Orange



Hooded top class 3

Hooded top with front zip, two side pockets, one chest pocket, elastic reflectors. Orange red/Black.

Fabric: 100% polyester. Weight 240 g/m². Wash at: 40°C.

Size: S - 3XL

CE: EN ISO 20471 class 3 (S-M class 2)

OrderNo: **87143419**





Jacket with hood class 3

Jacket with mesh-lined hood. Drawstring to adjust hood. Zip-up chest pocket on right-hand side. Side pockets. The right pocket with zip and D-ring. Elastic reflectors.

Fabric: 50% polyester, 50% cotton. Weight: 300 g. Wash at: 60°C.
 Size: XS - 3XL
 CE: EN ISO 20471 class 3 (XS class 2)

OrderNo: **940039811** Yellow/Black
940039818 Orange/Black



Sweatshirt class 3

Sweatshirt jacket with long zip. Zip-up chest pocket on right-hand side. Side pockets. The right pocket with zip and D-ring. Elastic reflectors.

Fabric: 50% polyester, 50% cotton. Weight: 300 g. Wash at: 60°C.
 Size: XS - 4XL
 CE: EN ISO 20471 class 3 (XS class 2)

OrderNo: **937039811** Yellow/Black
937039818 Orange/Black



Sweatshirt class 3

Round neck sweatshirt with hem and sleeve cuffs. Elastic reflectors.

Fabric: 50% polyester, 50% cotton. Weight: 300 g. Wash at: 60°C.
 Size: XS - 4XL
 CE: EN ISO 20471 class 3 (XS-S class 2)

OrderNo: **067039811** Yellow/Black
067039818 Orange/Black



Sweatshirt class 3

Round neck sweatshirt with hem and sleeve cuffs.

Fabric: 50% polyester, 50% cotton. Weight: 300 g. Wash at: 60°C.
 Size: S - 2XL
 CE: EN 471 class 3

OrderNo: **055079811** Yellow/Navy
055079818 Orange/Black





Sweatshirt jacket class 1 **New!**

Zip, chest pocket with zip, side pockets, the right side pocket with safety pocket, D-ring, elastic reflectors.

Fabric: 100% cotton (high-visibility 50% cotton 50% polyester).

Weight: 300 g. Wash at: 60°C.

Size: XS - 4XL

CE: EN ISO 20471 class 1

OrderNo: **943039811** Yellow
943039818 Orange



T-Shirt long sleeve class 3 **New!**

T-Shirt with crew neck. Elastic reflectors.

Fabric: 53% cotton, 47% polyester. Weight: 185 g. Wash at: 60°C.

Size: XS - 4XL

CE: EN ISO 20471 class 3 (XS class 2)

OrderNo: **076033011** Yellow
076033018 Orange



Polo shirt class 3

Polo shirt with elastic reflectors. Collar with buttons.

Fabric: 53% cotton, 47% polyester. Weight: 185 g. Wash at: 60°C.

Size: XS, S, M/L, XL, 2XL, 3XL, 4XL

CE: EN ISO 20471 class 3 (XS-S class 2).

OrderNo: **066033011** Yellow
066033018 Orange





T-Shirt class 3

T-Shirt with crew neck. Elastic reflectors.

Fabric: 53% cotton, 47% polyester. Weight: 185 g. Wash at: 60°C.
 Size: XS, S, M/L, XL, 2XL, 3XL, 4XL
 CE: EN ISO 20471 class 3 (XS-S class 2)

OrderNo: **065033011** Yellow
065033018 Orange



T-Shirt class 3

T-Shirt with crew neck.

Fabric: 75% polyester, 25% viscose. Weight: 175 g. Wash at: 40°C.
 Size: M - 2XL
 CE: EN 471 class 3

OrderNo: **053079511** Yellow/Navy
053079518 Orange/Black



High-visibility vest class 3

Chest pocket.

Fabric: 100% polyester. 130 g/m².
 Size: M - 2XL
 CE: EN ISO 20471 class 3

OrderNo: **308310** Yellow/Orange
322960 Yellow



High-visibility vest class 2

Zip.

Fabric: 100% polyester. 130 g/m².
 Size: XS - 2XL
 CE: EN ISO 20471 class 2

OrderNo: **307886** Yellow
307887 Orange





Shell jacket class 3

Shell jacket with taped seams. Removable and adjustable hood. Double chest pockets. Right pocket with flap, left pocket with zip. D-ring. Articulated sleeves. Zip-up side pockets. Inside pocket with zip, mobile phone pocket and pen pocket inside jacket. Adjustable sleeves and hem.

Fabric: 100% polyester with PU coating on the inside. Waterproof and windproof 5,000 mm/ 5,000 g. Weight: 220 g. Wash at: 40°C.

Size: XS - 3XL
CE: EN 471 class 3
EN 343

OrderNo: **734006611** Yellow
734006618 Orange



Winter lined parka, class 3

Winter parka jacket with taped seams. Removable and adjustable hood. Double chest pockets. Right pocket with flap and ID card holder under the pocket. Left pocket with zip. Napoleon pocket with zip on the left chest. Phone and pen pocket inside. Side pockets and front lower pockets. The front pockets have flaps. The side pockets have zips. Two mesh expander inside pockets plus a zip-up safety pocket. Adjustable at the cuffs, waist and hem.

Fabric: 100% polyester with PU coating on the inside. Waterproof and windproof 5,000 mm/5,000 g. Weight: 220 g. Wash at: 40°C.

Size: XS - 3XL
CE: EN 471 class 3
EN 343

OrderNo: **735076611** Yellow
735076618 Orange



Shell trousers class 2

Shell trousers with taped seams. Elasticated waistband at the sides. D-ring at waist. Loops. Zip-up side pockets. Back pockets with flap. Left thigh pocket with flap. Articulated knees for added comfort. Snow gaiter, zip-open ankle and leg width adjustment.

Fabric: 100% polyester with PU coating on the inside. Waterproof and windproof 5,000 mm/5,000 g. Weight: 220 g. Wash at: 40°C.

Size: XS - 3XL
CE: EN 471 class 2
EN 343

OrderNo: **298006611** Yellow





Shell jacket class 3

Shell jacket with taped seams. Removable and adjustable hood. Zip-up chest pocket on the right-hand side. Napoleon pocket with zip on the left chest. Phone and pen pocket inside. Side pockets. D-ring inside the right pocket. Inside pockets. One with elasticated mesh, the other with a zip. Pen pocket inside the jacket. Adjustable outer cuff and inner sleeve cuff. Adjustable hem. Elastic reflectors.

Fabric: 100% polyester. Waterproof and windproof
15,000 mm/11,000 g. Weight: 250 g. Wash at: 40°C.
Size: S - 4XL
CE: EN ISO 20471 class 3
EN 343

OrderNo: **796036911** Yellow/Black
796046911 Yellow/Navy
796036918 Orange/Black



Women's shell jacket class 3

Shell jacket with taped seams. Removable and adjustable hood. Zip-up chest pocket on the right-hand side. Napoleon pocket with zip on the left chest. Phone and pen pocket inside. Side pockets. D-ring inside the right pocket. Inside pockets. One with elasticated mesh, the other with a zip. Pen pocket inside the jacket. Adjustable outer cuff and inner sleeve cuff. Adjustable hem. Elastic reflectors.

Fabric: 100% polyester. Waterproof and windproof
15,000 mm/11,000 g. Weight: 250 g. Wash at: 40°C.
Size: XS - 3XL
CE: EN ISO 20471 class 3
EN 343

OrderNo: **546036911** Yellow/Black
546036918 Orange/Black



Shell trousers class 1

Shell trousers with taped seams. Elasticated waistband at the sides. Back pockets with flap. Zip-up side pockets. D-ring inside the right pocket. Thigh pockets, knife button and ruler pocket on the right side. ID card holder in left-hand pocket with flap closure. Knee pad pouches (to take pads 972290 and 972292). Snow gaiter, zip-open ankle and leg width adjustment. Elastic reflectors.

Fabric: 100% polyester. Waterproof and windproof
15,000 mm/11,000 g. Weight: 250 g. Wash at: 40°C.
Size: XS - 4XL
CE: EN ISO 20471 class 1
EN 343

OrderNo: **217016999** Black/Yellow
217016969 Navy/Yellow
217026999 Black/Orange





Winter jacket class 3

Padded winter jacket with taped seams. Removable and adjustable hood. Chest pockets with waterproof zips. D-ring under the right chest pocket. Left chest Napoleon pocket. Zip-up side pockets, D-ring inside the right-hand pocket. Two inner pockets, one with a zip. Adjustable hem and cuffs. Inner sleeve cuff. Elastic reflectors.

Fabric: 100% polyester. Waterproof and windproof 15,000 mm/11,000 g.

Weight: 250 g. Wash at: 40°C.

Size: XS - 4XL

CE: EN ISO 20471 class 3 (XS class 2)

EN 343

EN 342

OrderNo: **795146911** Yellow/Navy
795136911 Yellow/Black
795136918 Orange/Black

 Björnkälder



Winter parka jacket class 3

Padded winter parka with taped seams. Removable and adjustable hood. Two chest pockets. The right-hand pocket has flap closure and ID card holder. The left-hand pocket has a waterproof zip. Napoleon pocket with zip on the left chest. Front and side pockets. The front pockets have flap closures. The side pockets have a zip. D-ring inside the right-hand pocket. Two inside pockets, one zip-up, the other with elastic mesh. Adjustable hem and cuffs. Inner sleeve cuff. Elastic reflectors.

Fabric: 100% polyester. Waterproof and windproof 15,000 mm/11,000 g.

Weight: 250 g. Wash at: 40°C.

Size: XS - 4XL

CE: EN ISO 20471 class 3 (XS class 2)

EN 343

EN 342

OrderNo: **797046911** Yellow/Navy
797036911 Yellow/Black
797036918 Orange/Black
797036922 Red/Black

 Björnkälder



Winter trousers class 2

Padded winter trousers. Loops for attaching tool pockets (Order no. 907176511 and 907176518). Adjustable at the waist. Side pockets with waterproof zips. D-ring inside the right-hand pocket. Leg pockets with compartments. Right thigh pocket with knife button and ruler pocket. ID card holder inside left thigh pocket with flap closure. Knee pad pouches (to take pads 972290 and 972292). Snow gaiter, zip-open ankle and leg width adjustment. Elastic reflectors.

Fabric: 100% polyester. Waterproof and windproof 15,000 mm/11,000 g.

Weight: 250 g. Wash at: 40°C.

Size: XS - 4XL

CE: EN ISO 20471 class 2

EN 343

EN 342

OrderNo: **215046911** Yellow/Navy
215036911 Yellow/Black
215036918 Orange/Black
215036922 Red/Black

 Björnkälder



Tool pockets

Detachable tool pockets with compartments for tools and pens. Matches winter trousers 215-0 and 225-0.

Fabric: 75% polyester, 25% cotton. Weight: 260 g. Wash at: 60°C.

OrderNo: **907176518** Orange
907176511 Yellow

 Björnkälder



Winter jacket class 3

Jacket with longer back. Zip-up chest pocket on right-hand side. D-ring right chest. Left chest Napoleon pocket with extra inside pocket for mobile phone and pens. Zip-up side pockets. Inside pocket. Adjustable at the hem. Elasticated panels at the side hems. Inner sleeve cuffs.

Fabric: 75% polyester, 25% cotton water-repellent.
 Weight: 260 g. Wash at: 40°C.
 Size: S - 3XL
 CE: EN 471 class 3

OrderNo: **7980X6511** Yellow/Navy
7980N6511 Yellow/Grey
7980Z6518 Orange/Black

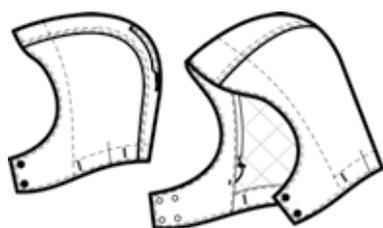


Winter parka jacket class 3

Lined parka jacket. Zip-up chest pocket on right-hand side. D-ring right chest. Left chest Napoleon pocket with extra inside pocket for mobile phone and pens. Front pockets with flap and side pockets. Adjustable waist and hem. Inner sleeve cuffs and adjustable sleeve width.

Fabric: 75% polyester, 25% cotton water-repellent.
 Weight: 260 g. Wash at: 40°C.
 Size: S - 3XL
 CE: EN 471 class 3

OrderNo: **7460X6511** Yellow/Navy
7460N6511 Yellow/Grey
7460Z6518 Orange/Black



Hood

Hood to go with the parka. Great for keeping the rain and wind out! Wash at: 40°C.

Fabric: 75% polyester, 25% cotton water-repellent.
 Weight: 260 g. Wash at: 40°C.
 Size: M - L

OrderNo: **088006511** Yellow
088006518 Orange



Winter trousers class 2

Lined trousers with belt loops. Side pockets, D-ring in the hem. Back pockets with flap. Right thigh pocket with flap. Articulated knees for added comfort.

Fabric: 75% polyester, 25% cotton water-repellent.
 Weight: 260 g. Wash at: 40°C.
 Size: S - 3XL
 CE: EN 471 class 2.

OrderNo: **2810X6511** Yellow/Navy blue
2810N6511 Yellow/Grey
2810Z6518 Orange/Black





ProTec functional & winter jacket class 3 **New!**

Breathable, wind and waterproof jacket. All seams are taped. Removable hood. The mesh lining and removable padded lining make this an all-season jacket. Waterproof zips under the sleeves for ventilation. Waterproof zip on chest pocket. Inner strap for ID card. Side pockets, inside pockets and a phone pocket.

Fabric: 100% polyester with PU laminate on the reverse.
Waterproof rating of 10,000 mm. Breathability of 5,000 g/m²/24h.
Weight 200 g/m². Wash at: 40°C.
Size: S - 3XL (Yellow/Black: S - 5XL)
CE: EN ISO 20471 class 3 (XS class 2)

OrderNo: **87125417** Yellow/Black
331021 Orange red/Black

UNIVERN 



ProTec functional trousers class 1 **New!**

Breathable, wind and waterproof jacket. All seams are taped. Mesh lining, removable straps, inside knee pad pouches, snow gaiter. Reinforced around the ankles and knees. Ruler pocket and zip-up back pocket. Use matching, approved short kneepads, order no: 972291 or 972293.

Fabric: 100% polyester with PU laminate on the reverse.
Waterproof rating of 10,000 mm. Breathability of 5,000 g/m²/24h.
Weight 200 g/m². Wash at: 40°C.
Size: S - 3XL
CE: EN ISO 20471 class 1

OrderNo: **87130417** Black/Yellow
331022 Black/Orangey red

UNIVERN 



ProTec winter boiler suit class 3 **New!**

Breathable, wind and waterproof jacket. All seams are taped. Mesh lining, removable hood, inside knee pad pouches, snow gaiter. Reinforced around the ankles and knees. External chest pocket with waterproof zip. Use matching, approved short kneepads, order no: 972291 or 972293. Wash at: 40°C.

Fabric: 100% polyester with PU laminate on the reverse.
Waterproof rating of 10,000 mm. Breathability of 5,000 g/m²/24h.
Weight 200 g/m².
Size: S - 3XL
CE: EN ISO 20471 class 3

OrderNo: **331047** Yellow/Black
331065 Orangey red/Black

UNIVERN 





Jacket with detachable sleeves class 3

Jacket with removable sleeves. Chest pockets, the left-hand pocket with zip, the right-hand pocket with external compartments, plus zip-up pocket. D-ring. Zip-up side pockets. Inside pocket and internal mobile phone pocket. Adjustable elasticated cuffs. Elasticated hem.

Fabric: 75% polyester, 25% cotton water-repellent.

Weight: 260 g. Wash at: 40°C.

Size: S - 3XL

CE: EN 471 class 3 (sleeveless class 2)

OrderNo: **7990X6511**



Softshell jacket class 3 **New!**

Windproof and waterproof, breathable. Fleece lining, two side pockets and one chest pocket with zip. Elastic hem and reflectors.

Fabric: 100% 75D polyester with PU laminate on the reverse.

Waterproof rating of 8,000 mm. Breathability of 3,000 g/m²/24h.

Weight 300 g/m². Wash at: 40°C.

Size: S - 3XL

CE: EN ISO 20471 class 3

OrderNo: **9812517**

Yellow/Black

9812520

Orange/Black

98125419

Red/Black



ProTec winter parka class 3 **New!**

Breathable, wind and waterproof jacket. All seams are taped. Removable hood. The parka has a mesh lining, but also a removable padded lining and can be worn year-round. Waterproof zips under the sleeves for ventilation. Waterproof zip on chest pocket. Inner strap for ID card. Side pockets, inside pockets and a phone pocket.

Fabric: 100% polyester with PU laminate on the reverse.

Waterproof rating of 10,000 mm. Breathability of 5,000 g/m²/24h.

Weight 200 g/m². Wash at: 40°C.

Size: S - 3XL

CE: EN ISO 20471 class 3

OrderNo: **87126417**

