



Solutions for water and waste treatment



Risks in the water and waste treatment sector

There are numerous risks associated with the waste collection and sorting and water treatment (purification, treatment, etc.) activities.

Risks related to the waste (biological and chemical) hazard, vehicles used for the collection and transport (handling, road risk), sorting procedures implemented (manual operations, exposure to noise, gas and dust, etc.), possible contamination from contact with waste water and sludge, accidents on the ground and falls from height in sometimes damp and dark working environments, etc.

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Biological and chemical risks

There are numerous risks associated with chemical and biological products. Contact with the skin can cause burns, irritation and even poisoning.

Wearing protective gloves should not be a substitute for safety measures that could prevent skin contact with these hazardous products.

It is important to note that no material is permanently resistant to any chemical and no material is resistant to all substances. The chemical resistance of a glove will depend as much on the composition of the chemical being handled as on the composition of the glove.

EN ISO 374-1 specifies the requirements for protective gloves to protect the user against hazardous chemicals.

- **Penetration** (tested according to **EN374-2**):
Air and water diffusion to check for leaks through pores, seams, micro-holes or other imperfections in a glove.
- **Degradation** (teste according to **EN374-4**):
Determination of the physical resistance of materials after continuous contact with hazardous chemicals.
- **Permeation** (tested according to **EN16523**):
The process by which a chemical diffuses through the material of a protective glove by continuous contact.

The EN ISO version of **EN374-1** introduces the concept of 3 types of protection against chemical permeation:

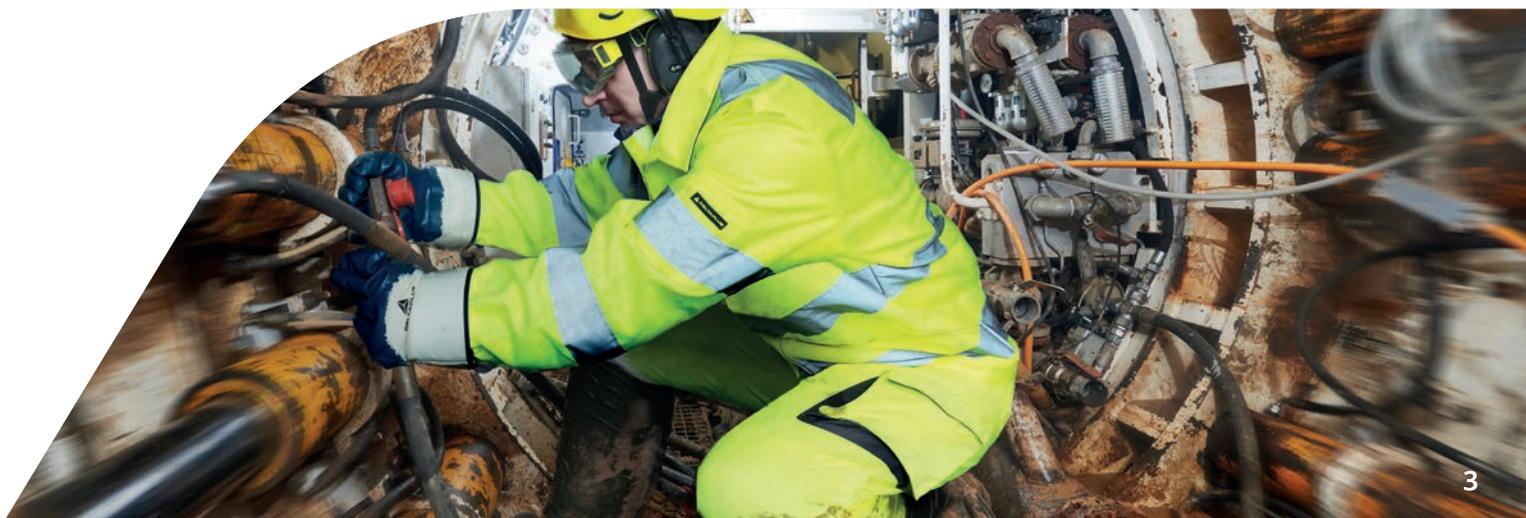
- **Type A:** The glove achieves a permeation performance index of at least 2 for 6 test chemicals taken from the list of chemicals determined in the standard.
- **Type B:** The glove achieves a permeation performance index of at least 2 for 3 test chemicals taken from the list of chemicals determined in the standard.
- **Type C:** The glove achieves a permeation performance index of at least 1 for 1 test chemical taken from the list of chemicals determined in the standard.



In order to best identify the resistance of a chemical product, it is recommended that you contact the INRS to find out what type of glove and material to use. Nitrile is a material with the greatest scope for chemical resistance.

Risk of pricking

Our products do not meet the EN ASTM F1342 anti-puncture standard, which is highly recommended for this type of job.



Risk of cutting

There are many causes of cuts in the cleaning and sanitation industries (sorting centres, waste management and recovery). Cuts can lead to disablement, amputation and even death in some cases. In most cases, a D-rated glove will cover most of the risks encountered, but in the most extreme cases, it is recommended to wear an F-rated glove (handling very sharp parts, broken glass, etc.)

Cut resistance according to the **ISO EN 13997** test method (evaluated in Newtons) is achieved when a glove is made of a material that blunts the circular blade in the usual blade cut resistance test. This new test is often referred to as the "TDM cut". It is named as such because the name of the test device used is the TDM 100. This method tests the cut resistance performance of the glove with a straight blade and higher pressure. This test is mandatory in the case of blade blunting in the first cut test. However, it is optional for gloves that do not blunt the blade. This glove will then be rated according to 6 levels of cut protection. These protection classes range from A to F (F being the highest level of protection). This level of protection will thus be rated following other mechanical test ratings.



Impact risk

Anti-impact gloves not only offer protection against impact, but also against abrasion, cutting, tearing or puncturing, with this test point being carried out according to EN388.

For anti-impact gloves, the test method is according to the EN388. The latter underwent some changes in late 2016. Now the glove can also go through the impact test phase which is optional, according to EN 13594 : 2015, with 3 potential results, namely P for 'pass', F for 'fail' and X for 'not tested'.

Risks related to the release of fibres, dust and gases

Exposure to harmful dusts or fibres is recurrent in the management of waste sorting (mineral dusts, mixed, containing crystalline silica, lead, metal, glass wool fibre, rock fibre, asbestos, etc.). There are many risks involved: irritation of the respiratory tract, skin, mucous membranes or even cancer and serious long-term illness.

EN149: Filtering half-masks

Impact, cleaning and disinfection, temperature, flame and breathing resistance tests.

- P1 Non-toxic dusts and/or water-based aerosols.
- P2 Solid and/or liquid aerosols with low toxicity or irritation
- P3 Toxic solid and/or liquid aerosols.

EN140: reusable half mask

EN136: reusable full mask



Depending on the level of exposure, respiratory protection must be adapted, a disposable FFP3 mask with a filtering valve, a half mask, a full mask or even a SCBA system for a more aggressive environment.

Risk of eye splashes

The risk of eye splashes is omnipresent. Whether it is dust, liquid or fibre splashes. This risk is particularly related to the nature of the material in question, whether it is more or less heterogeneous or homogeneous.

A safety goggle can have several innovations to improve comfort, fit and protection. For example, there are glasses with an integrated foam that protects against dust and liquids and provides comfort and impact absorption. There are also adjustable stems, which can be tilted, adjusted in length and/or height to fit the shape of the wearer's face better. There are also eye treatments that considerably improve resistance to scratches and fogging (K & N, LYVIZ treatment).

EN166: eye protection/ applies to all types of personal eye protectors against hazards likely to damage the eye with the exception of nuclear radiation, X-rays, laser emissions and IR emitted by low temperature sources. Does not apply to eye protectors, for which there are separate standards.



Safety goggles are intended to protect the eyes from external influences such as splinters, splashes, dust and radiation.

Noise hazards from sorting machines

Vibrating tables, conveyors, screens, compressors, balers, motors for feeding the sorting line, etc.

Prolonged exposure to noise from tools and machinery on construction sites can lead to long-term hearing loss, deafness or heart problems. Tinnitus, whistling, destruction of ear cells, deafness, stress or even high blood pressure are all factors to be taken into account. Hearing protectors are one way to protect yourself from noise.

Wearing a personal hearing protector (protecteur individuel contre le bruit - PICB) is the last resort for hearing protection. Protection is needed at all times, regardless of whether you work in a noisy environment for a few minutes or several hours.

The choice will depend on the noise risks and constraints of the work to be carried out.

EN352-1: Earmuffs.

EN352-2: Earplugs.

EN352-3: Earmuffs mounted on construction helmets.

Requirements for construction, design, performance and test methods.

Requirements of Directive 2003/10/EC: Minimum requirements for the protection of workers against the risks related to an 8-hour exposure to noise at ≥ 85 dB(A); Hearing protector mandatory at ≥ 80 dB(A) and < 85 dB(A); Hearing protector available to the worker at > 75 dB(A) and < 80 dB(A); Hearing protector recommended



A PICB should be chosen based on the following criteria: effectiveness, comfort, ease of use and compatibility with other PPE.

Weather-related risks

Working outdoors exposes you to the risk of frostbite, numbness of the limbs, blood circulation disorders known as Raynaud's syndrome, or even situations of hypothermia. Wet weather, especially rain, increases this risk.

In order to protect oneself, the questions to ask are the duration of exposure: from a few minutes to several hours, the temperature of the environment in question and the level of physical activity of the wearer, from immobility to moderate or intense.

EN342: Protective clothing for cold weather. This standard specifies requirements and test methods for clothing performance at temperatures below -5°C.

EN14058: Protective clothing for cool climates. This standard specifies requirements and test methods for clothing performance at moderately low temperatures: -5°C or above.

EN343: Protective rainwear. This standard specifies the requirements and test methods for the materials and seams of weather-resistant clothing.

EN511: Gloves for cold weather. This standard specifies the requirements and test methods for gloves that protect against cold transmitted by convection or conduction up to -30°C (optionally up to -50°C). This cold may be related to weather conditions or industrial activity.



The use of products that comply with EN511 (gloves), EN342 or EN14058 (clothing) and EN ISO 20345 CI (footwear) guarantees protection against the cold.

Risk of being knocked down due to lack of visibility

Wherever there are vehicles, there is a high risk of being run over due to lack of visibility, with consequences that can be fatal.

This is particularly the case during waste collection but also in sorting centres. Low speed vehicle traffic, sometimes outside dedicated areas, do not encourage pedestrians to be careful, so it is necessary to make them visible to drivers in order to significantly reduce the risk of being hit by a vehicle.

EN17353: This standard specifies the requirements for enhanced visibility equipment in the form of a garment, or device capable of visually signalling the presence of the user. There are 3 types depending on whether they are used during the day, in a dark environment or both.

EN ISO20471: This standard specifies the characteristics that protective clothing must have in order to visually signal the presence of users, so that they can be detected and seen clearly in dangerous situations.

There are 3 classes that allow you to be more or less visible depending on the working environment.



Risks of **falling on the ground**

There are many factors that contribute to falls on the ground (nature of the floor, temperature, type of footwear used, products covering the floor, etc.).

If it is not possible to eliminate the risk, several actions can be considered (roads, cleaning, coatings, lighting, choice of suitable PPE, etc.)

Several elements must be taken into account when choosing a shoe and therefore its sole:

- Of course, it is necessary to have the best level of slip resistance, especially with the angular design of the lugs in the sole.
- Good drainage tunnels must be present to allow the removal of dust, sludge and water.



The type of lugging is also important: It should be wide and high, to allow good stability on soft surface.

EN ISO 20345 changed in 2022.

One of the major changes concerns the slip resistance test. Indeed, there are two developments in the test in terms of marking and protocol:

Marking side:

Currently, slip is symbolised by three markings: SRA, SRB and SRC. These three markings are going to be removed.

The SRA test becomes mandatory and is therefore directly included in the basic requirements (BR). A safety shoe must pass this test (the SRA marking disappears) in order to be sold on the European market.

As far as the SRB is concerned, it is replaced by the (SR) marking which is an additional requirement of the standard.

Protocol side:

Type of surface/product tested:

Mandatory test = The surface used is tiled. The product that was added to the surface is maintained. It always involves lauryl sulfate (detergent).

SR = Previously, the surface used in the test (SRB) was steel. Noting that this type of surface was too rare in the industry, the standards committee decided to switch to a tiled floor. The product used remains the same (Glycerine).

Shoe surface tested:

Currently the slip tests are carried out on the heel and the flat part of the sole. With the new standard, they will be carried out on the heel and forefoot.



Risks of **falling from a height**

The risk of falling from heights and slipping is inherent to the work situation in wastewater treatment plants and especially in water management.

Indeed, the fact of having to move in areas around the stations requires safety of the workers, whether in confined spaces or in areas that could lead to slipping.

Confined spaces present safety hazards, both in terms of cramped access and working conditions, as well as the lack of oxygen.

In the drinking water and sanitation sector, professional federations and training organisations have developed a system for certifying workers' skills: the CATEC® (Certificat d'Aptitude à Travailler en Espaces Confinés).

Our TRA22/ TRA32 aluminium tripods are easy to set up (lightweight, intuitive) and the installation of the two plates allows the use of the Protector Elevator (with rescue option) and the winch for goods up to 250 kg. Its anchor points at the head of the tripod also allow for the anchoring of belay devices in the event that there is no access to move. The swivel feet ensure maximum stability even on a soft or wet surface.

The Protector Elevator TR018: its patented system allows a third party to lift and evacuate the victim without having to descend into the confined space in order to avoid the risk of over-accident. The HAR25HA harness has a long extension tube that makes it easy to evacuate a victim.



The "Confined spaces" solution provides total security for the person, both when moving to a confined space and when evacuating.

The Confined Space solution includes several standards depending on the category of products used:

Tripod and anchoring system: EN795 type B: anchoring device with one or more fixed anchor points not requiring structural anchoring.

Self-retracting reel with rescue option: EN360/ EN1496 Class A

EN360: Fall arrester with an automatic locking function and an automatic tensioning and return system for the lanyard. An energy dissipation element can be built into the fall arrester.

EN1496 Class A: Rescue lifting device

Fall arrest harness: EN361: a body-gripping system designed to arrest falls.



Risks of **musculoskeletal disorders (MSD)**

Musculoskeletal disorders mainly affect the joints of the upper limbs, lower back and knees when stimulated by repetitive movements, static work, overexertion, etc.

Parts of the body that are most affected are:

- hands, wrists, fingers: 38%
- shoulders: 30%
- lower back: 7%
- elbows: 22%
- knees: 2%

If you have to work on your knees, you should consider wearing knee protectors, whether they are built into your trousers, inserted into a specific pocket or worn over your trousers. The material used reduces the trauma caused by the hardness of the surface.

EN14404: this standard provides requirements and test methods for knee protectors used by people who have to kneel for work. There are 4 types of fixed or mobile protection and 3 levels of protection.



Kneeling, beyond the pain that makes the position uncomfortable, can cause knee hygroma or bursitis in the long term

Although this list of hazards you might encounter in the food industry is far from exhaustive, it gives you a good starting point **for your risk analysis and the implementation of appropriate PPE.**

Sorting of waste/ Collection

Sweeper/ Scavenger

DIAMOND VI WIND

One D-Rotor clamping system for easy one-handed adjustment, with or without gloves
Certified to be worn upside down for protection of the back of the skull

IRAYA SMOKE

Light and flexible
Ideal for long outdoor jobs

NI015

Its smooth nitrile coating is resistant to oil, grease and liquids

PHVE2 - PHPA2

A set that meets the EN ISO 20471 class 3 standard for safe working

JUMPER3 S3 SRC

An outsole with 30% higher slip resistance than the norm

DIAMOND VI WIND



ABS vented safety helmet. Innovative "baseball cap" shape to improve vision when looking up. Tested in normal wearing and reverse wearing to reduce encumbrance. Polyamide cradle: 3 textile straps with 8 fixing points. Foam sweat band. Adjustable ROTOR system : head sizes 53 to 64 cm. 2 possible positions of the headband (top/low) for a better comfort.

CE EN397
MM LD
-30°C +50°C

ANSI ANSI-ISEA Z89.1
TYPE I
CLASS C
Reverse wearing

IRAYA SMOKE



Polycarbonate glasses. Sport design. Polycarbonate frame for better comfort and durability.

CE EN166 EN172
1 F1/F1 UV5-3.1

ANSI ANSI-ISEA Z87.1
Z87+ U6 L3

PHVE2



Jacket. Elasticated cuffs. High visibility: Class 2. Shoulder-belt and parallel assembly. 2 pockets. Twill 80% polyester 20% cotton 230 g/m². Retro-reflective sewn bands.

CE EN ISO 20471

CLASS 2

CONICAP01



PU earplugs with headband in polypropylene which can be worn under the chin. Ideal for intermittent or occasional wear. Individual pack.

CE EN352-2
SNR 28 dB
H 29 M 24 L 22
Ø 8-18 mm

ANSI ANSI S3.19
NRR 21 dB

NI015



Light nitrile on interlock cotton lining. Knitted wrist. Ventilated back.

CE EN388
2111X

PHPA2



Trousers. Elasticated waist on both sides. High visibility: Class 2. 5 pockets including 1 ruler pocket. Twill 80% polyester 20% cotton 230 g/m². Retro-reflective sewn bands.

CE EN ISO 20471 EN14404

CLASS 2 TYPE 2
LEVEL 1

JUMPER3 S3 SRC



Upper: Pigmented split leather, S3 water resistant treatment. Lining: Polyamide mesh. Insole: Removable premolded - Polyester on EVA. Outsole: Injected - Dual-density PU.

CE EN ISO 20345
S3
SRC

Additional solutions

M1200VW



VERONA



VE715GR



NI150



NI155



LEGA



EASYVIEW



900VESHV



STAR



NOVA



FARGOHV



900PANHV



GOBI S3 SRC



Sorting of waste/ Sorting

Waste disposal agent

W734

Its tactile function allows you to keep your gloves on in all conditions

M2VE3 - M2PASTRF

Triple seams for longer life

PHOCEA S3 SRC

Quadruple stitching on the shaft for flawless durability

CONICMOVE01



PU earplugs with headband in polypropylene which can be worn under the chin. Ideal for intermittent or occasional wear.

CE EN352-2 SNR 29 dB H 31 M 25 L 23 Ø 12-17 mm ANSI S3.19 NRR 23 dB

M1200VW



Box of 10 active charcoal non woven synthetic fibre disposable masks FFP2 for organic vapours (for concentration < VME). Protection against harmful odours (welding fumes for example). Moulded mask. Nose clip for adjustment. Foam edge under nose clip. High performance exhalation valve. DOLOMIA optional test for longer continuous wear time.

CE EN149

GILP2



Vest. Fastening with velcro band. High visibility: Class 2. Parallel assembly. Polyester fabric. Retro-reflective sewn bands.

CE EN ISO 20471 CLASS 2 MAX 25X

M2VE3



Jacket. Elasticated cuffs. Elasticated waist on both sides. 7 pockets including 1 inside. Twill 65% polyester 35% cotton 245 g/m².

CE

W734



Polyester/Spandex. Foam nitrile and TPU coating on palm and fingertips. Gauge 15.

CE EN388 3 1 2 1 X

M2PA3F



Woman's trousers. Regular cut. Elasticated waist on both sides. Preformed knees. 7 pockets including 1 ruler. Twill 65% polyester 35% cotton 245 g/m².

CE EN14404 TYPE 2 LEVEL 1

PHOCEA S3 SRC



Upper: Pigmented split leather, S3 water resistant treatment. Lining: Polyamide mesh. Insock: Removable premolded - Polyamide on EVA. Outsole: Injected - PU bi-density. Non metallic footwear.

CE EN ISO 20345 S3 SRC

Additional solutions

FUJ12 GRADIENT



QUARTZ UP III



W733



VE733



STAR



LEGA



EASYVIEW



NOVA



900VESHV



M2PW3



900PANHV



MAESTRO S3 SRC



Sorting of waste/ Sorting

Machine operator

NI175

6 cm cuff for good protection of the arteries

COMET

Lightweight 160g/m² mesh for breathability

M2PHV

Cotton work trousers for more comfort and visibility by day and night

SAULT2 S3 SRC

Robust construction, the best compromise between comfort and durability

VULCANO2 SMOKE



Polycarbonate single lens glasses. Adjustable and tilting nylon arms. Spatula tips. Integrated TPE nose piece. Side protection.

CE EN166 1 FT/FT EN172 UVS-3.1 ANSI Z87.1 Z87+U6 L3

NI175



Nitrile on cotton jersey lining. 6-cm canvas safety cuff. Fully coated.

CE EN388 3 1 10 X

COMET



Short sleeve tee-shirt. Round collar. High visibility. Class 2. Shoulder-belt assembly. 100% polyester stitch 160 g/m². Retro-reflective sewn bands.

CE EN ISO 20471 CLASS 3 Max. 50 x

SAULT2 S3 SRC



Upper: Pigmented split leather, S3 water resistant treatment. Lining: Polyamide. Insock: Removable premolded - Polyamide on EVA. Outsole: Injected - Dual-density PU with bump cap..

CE EN ISO 20345 S3 SRC

ZIRCON I



UV-resistant high density polyethylene (HDPE) or polypropylene (PP) safety helmet. Low density (LDPE) polyethylene cradle with 8 fixing points. Sweat band. Manual adjustment: head sizes 53/63 cm. Electrical Insulation up to 1 000 V.A.C. or 1 500 V.D.C. Standard holes for accessories. Anchorage for chin straps with 2 or 4 points.

CE EN397 -10°C +50°C EN50365 CLASS 0

M2VHV



Jacket. Elasticated cuffs adjustable with Velcro. 4 pockets including 1 zipped and 1 inside. High visibility: Class 2. Parallel assembly. Twill 54% cotton 46% polyester 260 g/m². Retro-reflective sewn bands.

CE EN ISO 20471 JACKET/ JACKET + TROUSERS 2/3

M2PHV



Trousers. Elasticated waist on both sides. High visibility: Class 2. 7 pockets including 1 ruler pocket. Twill 54% cotton 46% polyester 260 g/m². Retro-reflective sewn bands.

CE EN ISO 20471 EN14404 TROUSERS/ JACKET + TROUSERS 2/3 TYPE 2 LEVEL 1

Additional solutions

VE726



VE727



NI150



NI155



MOONLIGHT2



EASYVIEW



900VESHV



NOVA



900PANHV



FARGOHV



JUMPER3 S3 SRC



Sorting of waste/ Sorting

Sorting agent



SPIDERMASK P2W X5

Easy adjustment with clip on the back.
Activated carbon captures bad odours

FIDJIHV

Good protection against the cold thanks to its back protector

ZIRCON I



UV-resistant high density polyethylene (HDPE) or polypropylene (PP) safety helmet. Low density (LDPE) polyethylene cradle with 8 fixing points. Sweat band. Manual adjustment: head sizes 53/63 cm. Electrical insulation up to 1 000 V.A.C. or 1 500 V.D.C. Standard holes for accessories. Anchorage for chin straps with 2 or 4 points.

CE EN397 EN50365
-10°C +50°C CLASS 0

CONICCOPLUS200



Dispenser box of 200 pairs HV disposable PU earplugs with plastic cord. Ergonomic design for more comfort. Individual plastic bag of 2 earplugs.

CE EN352-1 SNR 35dB H 35 M 33 L 30 6-15 mm ANSI ANSI S3.19 NRR 32 dB

SPIDERMASK P2W X5



Box of 5 reusable FFP2W dust mask. 5 Reusable moulded mask shells in TPE. Active carbon non woven synthetic fibre disposable masks for organic vapours (for concentration < VME). Protection against harmful odours (welding fumes for example). Replaceable. High performance valve which unscrews to allow the user to change the mask filter (SPIDERREFILL FFP2W). Adjustable straps. Back fastening with dip.

CE EN149 MOSH NIOSH N95

M2VE3



Jacket. Elasticated cuffs. Elasticated waist on both sides. 7 pockets including 1 inside. Twill 65% polyester 35% cotton 245 g/m².

CE

FIBKV02



Water-repellent cowhide full grain leather. Reverse hide cowhide full grain leather palm. 100% Kevlar® Technology knitted lining. 2 threads. Gauge 10.

CE EN388 EN420 4.2 EN407
4/4 ≥ 180 MM 3 3 3
3 2 4 3 B 4 2 X 1 X X

ASTM-F-2675M 53 (CAL/CM²)

M2PA3



Trousers. Regular cut. Elasticated waist on both sides. Preformed knees. 7 pockets including 1 ruler. Twill 65% polyester 35% cotton 245 g/m².

CE EN14404 TYPE 2 LEVEL 0

FIDJIHV



Reversible body warmer. Zip fastening. 4 pockets. High visibility: Class 2. Shoulder-belt assembly. Polyurethan-coated Oxford polyester fabric on 1 side. Quilted polyester taffeta fabric on 1 side. Retro-reflective sewn bands.

CE EN ISO 20471 CLASS 2 MAX 25X

MONTBRUN S3 SRC



Upper: Pigmented split leather, S3 water resistant treatment. Lining: Polyamide. Insock: Removable premolded - Polyamide on EVA. Outsole: Injected - Dual-density PU with bump cap.

CE EN ISO 20345 S3 SRC

Additional solutions

BRAVA2 CLEAR AB



M1202VB



VE730



SIERRA2



FIDJ13



M6PAN



PANOSTRPA



MAESTRO S3 SRC



Sorting of waste/Recycling

Composting agent

INTERLAGOS LIGHT HE

Its padded headband offers more comfort and support. Very light, ideal for long-term wear

RENOHV

Removable sleeves and fleece-lined collar for year-round comfort

VE723NO

Very good dexterity and finesse at work

BROOKLYN S3 SRC

A lightweight and comfortable S3 shoe with a waterproof upper

QUARTZ UP III



UV-resistant high density polypropylene (PP) safety helmet. Polyamide cradle: 3 textile bands with 8 fixing points. Foam sweat band. Innovative adjustable ROTOR system: head sizes 53/63 cm. 2 possible positions of the headband (high/low) for better comfort. Electrical insulation up to 1 000 V.A.C. or 1 500 V.D.C.



INTERLAGOS LIGHT HE



Ear defenders for safety helmets. Adjustable in height. High flexibility ABS arms and cups. Cups padded with synthetic foam. Can be used on their own or with VISOR HOLDER faceshield holder. Suitable for GRANITE, SUPER QUARTZ, QUARTZ, ZIRCON and BASEBALL DIAMOND safety helmets.



RENOHV



Bomber jacket with removable sleeves. Collar with polar lining for optimal comfort. Knitted cuffs and bottom of garment. Bomber jacket: High visibility Class 3. Shoulder-belt and parallel assembly. Bodywarmer: High visibility Class 2. Shoulder-belt and parallel assembly. 4 pockets. Polyurethane-coated Oxford polyester fabric. Polyester polar fleece lining. Retro-reflective sewn bands.



M1204V



Box of 10 non woven synthetic fibre disposable masks FFP2. Mask with 4 foldable parts suitable for all faces. Nose clip for adjustment. Foam edge under nose clip. High performance exhalation valve. Hygienic individual plastic bag. DOLOMIA optional test for longer continuous wear time.



VE723NO



Polyester/Spandex. Foam nitrile coating on palm and fingertips. Gauge 15.



M2PA3STRF



Woman's trousers. Adjusted cut. Elasticated waist on both sides. Preformed knees. 7 pockets including 1 ruler. Twill 63% polyester 34% cotton 3% elastane 260 g/m².



BROOKLYN S3 SRC



Upper: Suede split leather (cowhide), S3 water resistant treatment with front rubber reinforcement. Lining: Polyester non-woven and knitted mesh. Insock: Removable premolded - Polyester on EVA. Outsole: Cemented - Phylon. Outsole: Rubber. Non metallic shoe.



Additional solutions

BLOW2 LIGHT MIRROR



KILIMANDJARO CLEAR AB



ZIRCON 1



CONICCOPLUS200



INTERLAGOS NB



VE712



LAT50



SIERRA2



FIDJ13



M2VE3



M6PAN



M2PA3



PANOSTRPA



GROUNDHC



Sorting of waste/Recycling

Storage centre agent



INTERLAGOS LIGHT HE
Its padded headband offers more comfort and support.
Very light, ideal for long-term wear

VENICUTB05
Antistatic, anti-cut and tactile

M2C03
Triple seams for longer life

QUARTZ I



Ventilated UV-resistant high density polypropylene (PP) safety helmet. Polyethylene cradle: 8 fixing points. Sweat band. Manual adjustment: head sizes 53/63 cm. 2 possible positions of the headband (high/low) for better comfort. Helmet with adjustable ventilation.

CE EN397
-10°C +50°C

INTERLAGOS LIGHT HE



Ear defenders for safety helmets. Adjustable in height. High flexibility ABS arms and cups. Cups padded with synthetic foam. Can be used on their own or with VISOR HOLDER faceshield holder. Suitable for GRANITE, SUPER QUARTZ, QUARTZ, ZIRCON and BASEBALL DIAMOND safety helmets.

CE EN352-3
SNR 26 dB
H 29 M 24 L 16
S/M/L ANSÍ ANSÍ S3.19
NRR 24 dB

BAUCE2



Shoulder-belt. Fastening with velcro band. Belt and shoulder bands width: 7.5 cm. High visibility. Shoulder-belt assembly. PU-coated Oxford polyester fabric. Retro-reflective sewn bands.

CE EN13356
TYPE 2

BRAVA2 CLEAR AB



Polycarbonate single lens glasses. Soft flat spatula type arms. Integrated polycarbonate nose piece. Easy to use with safety helmet and ear defenders. Side protection.

CE EN166 EN170
1 FT/FT UV2C-1.2

VENICUTB05



DELTAocut® high performance fibre and carbon fibre. Polyurethane coating on palm and fingertips. Gauge 18.

CE EN388 EN16350 EN407
3 X 3 1 B X 1 X X X X

M2CO3



Overalls. Regular cut. Zip fastening under bias. Elasticated waist at the back. Elasticated cuffs. Preformed knees. 9 pockets including 1 ruler. Twill 65% polyester 35% cotton 245 g/m².

CE EN14404
TYPE 2
LEVEL 0

MANHATTAN S3 SRC



Upper: Suede split leather (cowhide), S3 water resistant treatment with front rubber reinforcement. Lining: Polyester non-woven and knitted mesh. Insock: Removable premolded - Polyester on EVA. Outsole: Cemented - Phylon. Outsole: Rubber. Non metallic shoe.

CE EN ISO 20345
S3 HRO
SRC

Additional solutions

CONICCOPLUS200



FIBKV02



M2VHV



MOONLIGHT2



EASYVIEW



ZIRCON 1



FBN49



OFFSHORE



METEOR



FARGO HV



PHOENIX S3 SRC



Water supply & treatment/Production & distribution

Driller



W913

TPR reinforcements provide impact protection in the metacarpal area

M5VE3 - M5PA3

280 g/m² cotton fabric with Cordura® insert improves durability and comfort

QUARTZ I



Ventilated UV-resistant high density polypropylene (PP) safety helmet. Polyethylene cradle: 8 fixing points. Sweat band. Manual adjustment: head sizes 53/63 cm. 2 possible positions of the headband (high/low) for better comfort. Helmet with adjustable ventilation.

CE EN397 -10°C +50°C

PACAYA CLEAR STRAP LYVIZ



Polycarbonate single lens glasses. Integrated polycarbonate nose piece. Adjustable nylon arms. Side protection.

CE EN166 UV2C-1.2 EN170 ANSII ANSII-ISEA Z87.1 Z87+ U6

WV913



High performance polyethylene support. TPR reinforcement on back and fingertips. Double smooth nitrile coating/foam nitrile on palm and fingertips. Embossed inside reinforcement on palm. Inside acrylic lining. Kevlar® thread on all the seams.

CE EN388 EN511 ANSII ANSII-ISEA 105 A4
4X4 2DP 13X

M5VE3



Jacket. Zip fastening under velcro flap. Velcro adjustable cuffs. 7 pockets including 2 inner. Canvas 60% cotton 40% polyester 280 g/m². Reinforcements: Polyurethane-coated Cordura® Oxford polyamide fabric 240 g/m².

CE

NOMAD2 S3 SRC



Upper: Full grain leather, S3 water resistant treatment. Lining: DELTA-TEX™ waterproof polyester membrane. Insock: Removable - polyester on EVA. Midsole: Injected - Dual density PU. PU bumper protection. Non metallic footwear.

CE EN ISO 20345 S3 WR HI CI SRC

M5PA3



Trousers. Loose cut. Elasticated waist on both sides. Preformed knees. 8 pockets including 1 ruler. Canvas 60% cotton 40% polyester 280 g/m². Reinforcements: Polyurethane-coated Cordura® Oxford polyamide fabric 240 g/m².

CE EN14404 TYPE 2 LEVEL 1

Additional solutions

ASO2 SMOKE



QUARTZ UP III



VV900



VV902



VV910



MOONLIGHT2



EASYVIEW



OPTIMUM3



MCPA2



MCPA2STR



M2PA3STR



IRON S5 SRC



Water supply & treatment/Production & distribution

Road and network worker

DIAMOND V

One D-Rotor clamping system for easy one-handed adjustment, with or without gloves
Certified to be worn upside down for protection of the back of the skull

INTERLAGOS LIGHT HE

Its padded headband offers more comfort and support. Very light, ideal for long-term wear

LA500

Its 3/4 coating is a compromise between waterproofing and breathability

PHPA2

The darker top and bottom of the trousers make them less messy

DIAMOND V



ABS safety helmet. Innovative "baseball cap" shape to improve vision when looking up. Also tested for front to back wearing, to reduce encumbrance. Polyamide cradle: 3 textile straps with 8 fixing points. Foam sweat band. Innovative button adjustment "colour to colour" for head size 53 to 63 cm. 2 possible positions of the headband (top/low) for a better comfort. Electrical insulation up to 1 000 V.A.C. or 1 500 V.D.C.

CE EN397 EN50365
MM LD
-30°C +50°C
440VAC
CLASS 0

INTERLAGOS LIGHT HE



Ear defenders for safety helmets. Adjustable in height. High flexibility ABS arms and cups. Cups padded with synthetic foam. Can be used on their own or with VISOR HOLDER faceshield holder. Suitable for GRANITE, SUPER QUARTZ, QUARTZ, ZIRCON and BASEBALL DIAMOND safety helmets.

CE EN352-3 ANSI ANSI S3.19
SNR 26 dB NRR 24 dB
H 29 M 24 L 16
S/M/L

ASTRAL



Sweat jacket. Knitted cuffs and bottom of garment. High visibility: Class 3. Shoulder-belt assembly. 75% polyester 25% cotton fleece. 280 g/m². Retro-reflective sewn bands.

CE EN ISO 20471
CLASS 3

PACAYA CLEAR STRAP LYVIZ



Polycarbonate single lens glasses. Integrated polycarbonate nose piece. Adjustable nylon arms. Side protection.

CE EN166 EN170 ANSI ANSI-ISEA 287.1
1 FT/FT UV2C-1.2 Z87+

LA500



Latex rough-textured on cotton Interlock lining. Knitted wrist. Ventilated back.

CE EN388
2 1 2 1 X

PHPA2



Trousers. Elasticated waist on both sides. High visibility: Class 2. 5 pockets including 1 ruler pocket. Twill 80% polyester 20% cotton 230 g/m². Retro-reflective sewn bands.

CE EN ISO 20471 EN14404
CLASS 2 TYPE 2
LEVEL 1

GObI S3 SRC



Upper: Cow leather, water resistant treatment S3 and PU-coating suede split leather. Lining: Absorbent 3D mesh. Insole: Removable premolded - Polyester on EVA. Outsole: Injected - Dual-density PU.

CE EN ISO 20345
S3 CR
SRC

Additional solutions

GO-SPECS TEC SMOKE



GRANITE PEAK



VE920



VW636



LEGA



NOVA



STAR



EASYVIEW



FARGOHV



TW402 S3 SRC



Our complete confined spaces offering

TRA22



TR018



HAR25HA



TR006



Water supply & treatment/Production & distribution

Drinking water treatment technician

QUARTZ I

Its ventilation system allows good breathability

M5VE3 - M5PA3

280 g/m² cotton fabric with Cordura® insert improves durability and comfort

QUARTZ I



Ventilated UV-resistant high density polypropylene (PP) safety helmet. Polyethylene cradle: 8 fixing points. Sweat band. Manual adjustment: head sizes 53/63 cm. 2 possible positions of the headband (high/low) for better comfort. Helmet with adjustable ventilation.

CE EN397
-10°C +50°C

VE802



Nitrile with cotton flocklining. Length: 33 cm. Thickness: 0,38 mm.

CE EN388 EN ISO 374-1 EN ISO 374-5
4 1 0 1 X TYPE A
AJ KL MN OPT

M5VE3



Jacket. Zip fastening under velcro flap. Velcro adjustable cuffs. 7 pockets including 2 inner. Canvas 60% cotton 40% polyester 280 g/m². Reinforcements: Polyurethane-coated Cordura® Oxford polyamide fabric 240 g/m².

CE

GILP4



Vest. Fastening with velcro band. High visibility: Class 2. Shoulder-belt assembly. Polyester fabric. Retro-reflective sewn bands.

CE EN ISO 20471
CLASS 2
MAX 25X

M5PA3



Trousers. Loose cut. Elasticated waist on both sides. Preformed knees. 8 pockets including 1 ruler. Canvas 60% cotton 40% polyester 280 g/m². Reinforcements: Polyurethane-coated Cordura® Oxford polyamide fabric 240 g/m².

CE EN14404
TYPE 2
LEVEL 1

SAMY2 S3 SRC



Upper: Full grain leather, S3 water resistant treatment. Lining: DELTA-TEX™ waterproof polyester membrane. Insock: Removable premolded - Polyester on EVA. Outsole: Injected - Dual-density PU. PU bumper protection.

CE EN ISO 20345
S3 WR HI CI
SRC

Additional solutions

IRAYA SMOKE



DIAMOND6 WIND



VE846



SIERRA2



FIDJI3



MCPA2STR



M2PA3STR



NOMAD2 S3 SRC



Water supply & treatment/Production & distribution

Wastewater treatment plant operator



EASYVIEW

A warm, waterproof parka for safe travel

VE702PESD

Its tactile function allows you to keep your gloves on in all conditions

M2PA3STRF

Its stretch composition accompanies all movements

GOBI S3 SRC

Optimum comfort thanks to its Air mesh 3D polyester lining

DIAMOND VI WIND



ABS vented safety helmet. Innovative "baseball cap" shape to improve vision when looking up. Tested in normal wearing and reverse wearing to reduce encumbrance. Polyamide cradle: 3 textile straps with 8 fixing points. Foam sweat band. Adjustable ROTOR system : head sizes 53 to 64 cm. 2 possible positions of the headband (top/low) for a better comfort.

CE EN397 MM LD -30°C +50°C ANSI ANSI-ISEA Z89.1 TYPE I CLASS C Reverse wearing

KILIMANDJARO CLEAR AB



Polycarbonate single lens glasses. Adjustable nylon arms. Side protection.

CE EN166 1 FT/FT EN170 UV2C-1.2 ANSI ANSI-ISEA Z87.1 Z87+

M1202BH



Box of 30 non woven synthetic fibre disposable masks FFP2. Nose clip for adjustment. Hygienic individual plastic bag.

CE EN149

EASYVIEW



Warm parka Waterproof seams. Fastening with zip under velcro storm flap. High visibility: Class 3 - Shoulder-belt and parallel assembly. 4 pockets. Polyurethane-coated Oxford polyester fabric. Quilted polyester Taffeta lining. Retro-reflective sewn bands.

CE EN ISO 20471 EN343 CLASS 3 Max. 25 x 3 1* X

VE702PESD



Carbon polyester. Polyurethane coating on palm and fingertips. Gauge 13.

CE EN388 EN16350 3 1 2 1 A ≤ 16.38x10⁶

M2PA3STRF



Woman's trousers. Adjusted cut. Elasticated waist on both sides. Preformed knees. 7 pockets including 1 ruler. Twill 63% polyester 34% cotton 3% elastane 260 g/ m².

CE EN14404 TYPE 2 LEVEL 0

GObI S3 SRC



Upper: Cow leather, water resistant treatment S3 and PU-coating suede split leather. Lining: Absorbent 3D mesh. Insole: Removable premolded - Polyester on EVA. Outsole: Injected - Dual-density PU.

CE EN ISO 20345 S3 CR SRC

Additional solutions

HELIUM2 SMOKE



VE846



LEGA



STAR



MCPA2STR



PHOCEA S3 SRC



ZIRCON 1



VE766



SPEED



OFFSHORE



FARGOHV



BROOKLYN S3 SRC



Water supply & treatment/Maintenance

Sanitation network agent



SAJAMA

Its reinforced K & N treatment makes it a very resistant protection. Its built-in face seal is watertight and provides comfort

GRANITE PEAK

Ideal for use in confined spaces due to its visorless design which provides a totally unobstructed field of vision

M2VHV - M2PHV

Cotton work trousers for more comfort and visibility by day and night

NI170

6 cm cuff for good protection of the arteries

IRON S5 SRC

Reinforced design in the toe cap, ankle and instep for optimal protection

GRANITE PEAK



ABS safety helmet. Mountain helmet style: without visor for the best vertical vision. Less encumbrance. Light. Polyamide cradle: 3 textile bands with 8 fixing points. Thermoformed sweat band. Innovative adjustable ROTOR system: head sizes 53 to 63 cm. Sold with 3 point chin strap. Specially designed for working at height. Electrical insulation up to 1 000 V.A.C. or 1 500 V.D.C.



INTERLAGOS LIGHT HE



Ear defenders for safety helmets. Adjustable in height. High flexibility ABS arms and cups. Cups padded with synthetic foam. Can be used on their own or with VISOR HOLDER faceshield holder. Suitable for GRANITE, SUPER QUARTZ, QUARTZ, ZIRCON and BASEBALL DIAMOND safety helmets.



SAJAMA



Clear polycarbonate goggles, indirect ventilation. Antiscratch K and antifog N treatments. TPE flexible frame for long-lasting comfort. Chemicals-resistant neoprene band.



NI170



Nitrile on cotton jersey lining. 6-cm canvas safety cuff. Ventilated back.



IRON S5 SRC



Upper: PVC. Lining: Polyester. Protection of the malleoli. Front and back protection toe bumper. Rear removal lug. Protective toe cap: stainless steel. Anti-perforation mid sole: stainless steel. Sole: PVC - Nitrile.



M2VHV



Jacket. Elasticated cuffs adjustable with Velcro. 4 pockets including 1 zipped and 1 inside. High visibility: Class 2. Parallel assembly. Twill 54% cotton 46% polyester 260 g/m². Retro-reflective sewn bands.



M2PHV



Trousers. Elasticated waist on both sides. High visibility: Class 2. 7 pockets including 1 ruler pocket. Twill 54% cotton 46% polyester 260 g/m². Retro-reflective sewn bands.



Additional solutions

ZIRCON 1



VISORH



VISORPC



VE766



LA600



LEGA



EASYVIEW



OPTIMUM3



STAR



COMET



FARGOHV



FISHER2 S5 SRA



OYSTER2 S5 SRA



Our complete confined spaces offering

TRA22



TR018



HAR25HA



TR006



Water supply & treatment/Maintenance

Sewer

WV835

Its triple nitrile coating ensures good resistance to abrasion

GRANITE PEAK

Ideal for use in confined spaces due to its visorless design which provides a totally unobstructed field of vision

DT119

Its self-adhesive flap ensures a good seal

SAJAMA

Its reinforced K & N treatment makes it a very resistant protection. Its built-in face seal is watertight and provides comfort

GRANITE PEAK



ABS safety helmet. Mountain helmet style: without visor for the best vertical vision. Less encumbrance. Light. Polyamide cradle: 3 textile bands with 8 fixing points. Thermoformed sweat band. Innovative adjustable ROTOR system : head sizes 53 to 63 cm. Sold with 3 point chin strap. Specially designed for working at height. Electrical insulation up to 1 000 V.A.C. or 1 500 V.D.C.

CE EN397 EN50365
MM
-20°C +50°C
440VAC CLASS 0

WV835



Double nitrile coating on polyamide lining. Third rough foam nitrile coating on palm and fingertips. Length: 35 cm. Thickness: 1.15 mm on cuff - 1.30 mm on palm.

CE EN388 EN ISO 374-1 EN ISO 374-5
4 1 2 1 X TYPE B
AJ KL

DT119



Overall with elasticated hood. 4-B type. Non-woven microporous laminate Deltatek 5000. Fastening with zip under adhesive flap (top and bottom opening). Elasticated waist and ankles. Knitted wrist. Antistatic. Single-use. Individual airtight pack.

CE EN14605 EN ISO 13982-1 EN13034
TYPE 4B TYPE 5B TYPE 6B
EN1149-5 EN14126 EN1073-2
CLASS 1

M1300V



Box of 5 non woven synthetic fibre disposable masks FFP3. Wide adjustable straps. Moulded mask. Nose clip for adjustment. Complete ultra-soft face joint ring. High performance exhalation valve. DOLOMIA optional test for longer continuous wear time.

CE EN149

SAJAMA



Clear polycarbonate goggles, indirect ventilation. Antiscratch K and antifog N treatments. TPE flexible frame for long-lasting comfort. Chemicals-resistant neoprene band.

CE EN166 EN170
1 BT K N UV2C-1.2
3 4 BT

HAR25HA



Harness with positioning belt. 2 fall arrest anchorage points (dorsal - sternal). 6 adjustable buckles including 4 automatic. Positioning belt with thermoformed. 2 lateral work positioning anchorage points. 1 extension lanyard.

CE EN361 EN358
150 KG 150 KG

FISHER2 S5 SRC



Coated canvas: PVC, height: 80 cm. 100% waterproof high frequency heat seal. Lining: cotton jersey. Nylon retaining straps. Protection of the malleoli. Rear removal lug. Protective toe cap: stainless steel. Anti-perforation mid sole: stainless steel. Sole: PVC - Nitrile with large cleats.

CE EN ISO 20345
S5 SRC

Additional solutions

GO-SPECS TEC CLEAR



PACAYA LYVIZ CLEAR



VE766



LA600



GALAXY STRAP



EASYVIEW



OPTIMUM3



STAR



LEGA



FARGOHV



DT300



FISHER2 S5 SRA



IRON S5 SRC



Our complete confined spaces offering

TRA22



TR018



HAR25HA



TR006



Water supply & treatment/Maintenance

Driver operator



M2PA3STR
Its stretch composition
accompanies all movements

NOMAD2 S3 SRC
Its DELTA TEX waterproof
membrane provides complete
protection in all weather
conditions

VE724
Its non-slip dots allow a good grip
in liquid or greasy environments

QUARTZ UP IV



Ventilated UV-resistant high density polypropylene (PP) safety helmet. Polyamide cradle: 3 textile bands with 8 fixing points. Foam sweat band. Innovative adjustable ROTOR system: head sizes 53/63 cm. 2 possible positions of the headband (high/low) for better comfort.

CE EN397
MM
-30°C +50°C

GILP2



Vest. Fastening with velcro band. High visibility: Class 2. Parallel assembly. Polyester fabric. Retro-reflective sewn bands.

CE EN ISO 20471
CLASS 2
MAX 25X

VE724



Polyester/Spandex. Nitrile coating on palm and fingertips. Nitrile dots on palm. Gauge 15.

CE EN388
4121X

TURINO



Polo with long sleeves (To match MACH range). Knitted cuffs. Piqué stitch 100% cotton 210 g/m².

M2PA3STR



Trousers. Adjusted cut. Elasticated waist on both sides. Preformed knees. 7 pockets including 1 ruler. Twill 63% polyester 34% cotton 3% elastane 260 g/m².

CE EN14404
TYPE 2
LEVEL 1

NOMAD2 S3 SRC



Upper: Full grain leather, S3 water resistant treatment. Lining: DELTA-TEX™ waterproof polyester membrane. Insock: Removable - polyester on EVA. Midsole: Injected - Dual density PU. PU bumper protection. Non metallic footwear.

CE EN ISO 20345
S3 WR HI CI
SRC

Additional solutions

FUJ12 GRADIENT



VE802



AIR COLTAN



CBHV2



LEGA



EASYVIEW



NOVA



STAR



FARGOHV



SAMY2 S3 SRC



