



Accessories

Standard EN ISO 374

Gloves for protection against chemicals and microorganisms

PREVIOUSLY
> Standard EN 374-1:2003



Protection against chemicals

- Limited protection against chemicals
- Resistance to penetration determined according to EN 374-2:2003



Specific protection against chemicals

- Resistance to penetration determined according to EN 374-2:2003
- Determination of resistance to permeation according to EN 374-3:2003: breakthrough time \geq 30 min for at least 3 of the 12 test chemicals



Protection against microorganisms (bacteria and fungi)

- Resistance to penetration determined according to EN 374-2:2003
- AQL (acceptable quality limit) at least Level 2

IN FUTURE

> Standard EN ISO 374:1-2016

Chemical protective gloves

Classification is based on 3 test methods:

- Determination of resistance to penetration according to EN 374-2:2014 (air leakage and water leakage test)
- Determination of resistance to permeation according to standard EN 16523-1:2015 (replaces EN 374 3)
- Determination of degradation according to EN 374-4:2013



Standard EN ISO 374

Degradation test according to EN 374- 4:2013




Impairment of the glove's physical properties due to contact with a chemical substance. To be able to declare chemical protection against one of the listed substances, both the breakthrough time and the degradation must be determined. The result of the degradation test must be stated in the usage instructions.

Six new chemicals have been added to the list of hazardous compounds.

LIST OF DEFINED TEST CHEMICALS

Code letter	Hazardous material	CAS number	Substance class
A	Methanol	67/56/1	Primary alcohols
B	Acetone	67/64/1	Ketones
C	Acetonitrile	75/05/8	Nitrile compounds
D	Dichloromethane	75/09/2	Chlorinated hydrocarbons
E	Carbon disulphide	75-15-0	Sulphur with organic compounds
F	Toluene	108/88/3	Aromatic hydrocarbons
G	Diethylamine	109/89/7	Amines
H	Tetrahydrofuran	109/99/9	Heterocyclic and ether compounds
I	Acetic acid ethyl ester (ethyl acetate)	141/78/6	Ester
J	n-heptane	142/82/5	Aliphatic hydrocarbons
K	Sodium hydroxide 40 %	1310/73/2	Inorganic alkalis
L	Sulphuric acid 96 %	7664/93/9	Inorganic mineral acids, oxidising
M	Nitric acid 65 %	7697/37/2	Inorganic mineral acid, oxidising
N	Acetic acid 99 %	64/19/7	Organic acids
O	Ammonia 25 %	1336/21/6	Organic alkalis
P	Hydrogen peroxide 30 %	7722/84/1	Peroxides
S	Hydrofluoric acid 40 %	7664/39/3	Inorganic mineral acids
T	Formaldehyde 37 %	50-00-0	Aldehydes

ONE PICTOGRAM – 3 GLOVE TYPES

Glove type	Requirements	Markings
Type A	Protection against penetration according to EN 374-2:2014 Minimum permeation time \geq 30 min for at least 6 chemicals from the list of specified test chemicals	EN ISO 374-1 Type A  AJKLPR
Type B	Protection against penetration according to EN 374-2:2014 Minimum permeation time \geq 30 min for at least 3 chemicals from the list of specified test chemicals	EN ISO 374-1 Type B  JKL
Type C	Protection against penetration according to EN 374-2:2014 Minimum permeation time \geq 10 min for at least 1 chemical from the list of specified test chemicals	EN ISO 374-1 Type C 

> Standard EN ISO 374:5-2016

Protective gloves against microorganisms

For protection against bacteria and fungi, the glove must pass the penetration test according to EN 374-2:2014.

If protection against viruses is also to be verified, a bacteriophage penetration test in accordance with ISO 16604:2004 (procedure B) must also be carried out and passed.

EN ISO 374-5



Gloves for protection from bacteria and fungus

EN ISO 374-5



VIRUS

Gloves for protection from bacteria, fungus and viruses

Standard EN 388:2016

The EN 388 standard applies to protective gloves against mechanical risks.

It specifies requirements, test methods, labelling and manufacturer information against four mechanical hazards: abrasion, cutting, tear propagation and puncture.

A revision of the standard is necessary because the continuous development of cut-resistant yarns has led to a high scatter in the measured values and poor reproducibility in the coup test.

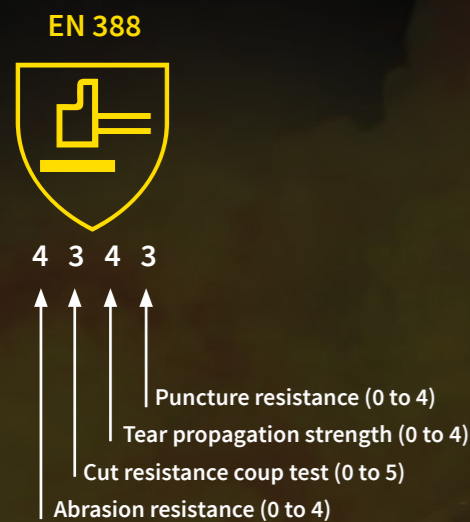
Protection against impact

NEW

New test procedure according to EN 13594:2015, which can optionally be carried out to show protection against impacts. Pass or fail test, i.e. if the glove passes the test, a "P" for "Pass" is given below the pictogram after the fifth digit. Marked "Passed". In the event of failure or non-performance of the test, there is no marking.

Pictogram

PREVIOUSLY



IN FUTURE



PERFORMANCE RATING*

Testing to EN 388	Level 1	Level 2	Level 3	Level 4	Level 5
Abrasion resistance (cycles)	100	500	2000	8000	-
Cut resistance - coup test (index)	1.2	1.5	5.0	10.0	20.0
Tear propagation strength (Newton)	10	25	50	75	-
Puncture resistance (Newton)	20	60	100	150	-
Testing to ISO 13997	Level A	Level B	Level C	Level D	Level E
	2	5	10	15	22

* Values greater than or equal to

Undergloves

TEGERA 8120 underglove

Textile glove, cotton, Cat. I, for assembly work

PRIMARY AREAS OF USE

Fine assembly work, assembly work, acceptance testing, installation work, electrical installation work, warehouse work

LENGTH: 220-270 mm
COLOUR: white
PAIRS PER MULTIPACK/CARTON: 12/300
CLOSURE: with 180° elasticated wristband

SALIENT FEATURES

- Comfortable
- Lightweight
- Air permeable
- Good grip
- Good tactility
- Supple
- Specially shaped thumb
- Chain stitch

Sizes: 6-11

Order no.: 2507-700



Underglove uvex arc protect g1

Hands are at the greatest risk of burns from short circuit electric arcs when working on electrical equipment. The uvex arc protect g1 protective glove provides safe protection against the thermal discharge of a short circuit electric arc. The modacrylic/cotton knit is flame-retardant and protects the wearer from second-degree skin burns. The short circuit electric arc glove can also be combined with the uvex power protect V1000 electrician's glove.

Features

- Anatomical fit
- Excellent flexibility
- Excellent tactility
- Suitable for dry working environments
- Sizes: 7-11
- Standard ISO 21420:2020, EN 388:2016 + A1:2018, EN 407:2004
- Levels according to EN 388: 1 X 2 1 X
- Levels according to EN 407: 4 1 1 1 X X
- Cotton outer
- Version with cuff
- Colours: grey, anthracite

Order no.: 2507-800



Undergloves

WIPAN B+ – CBRN protective glove

Specific advantages

- Excellent comfort and tactile feel in combination with additional 5-finger cotton knitted glove (inside, optional)
- Protection against intensive exposure to corrosive solvents, acids, caustic solutions and gasses, combined with sufficient protection against physical strain (according to EN 943).
- Combat gases (CBRN) tested

Application:

- SYKAN protective suits
- Firefighters for unrestricted use according to EN 943
- Pharmaceutical industry and labs: maintenance and cleaning work, maintenance work in wet environments
- Mechanical industry: maintenance work in humid environment (water, oils, greases, hydrocarbons)

Approvals: according to Regulation (EU) 2016/425 and complies with standards EN 420:2003+A1:2009, EN 388:2016, EN ISO 374-1:2016+A1:2018, EN 374-2:2014, EN 374-4:2013 and EN ISO 374-5:2016

Material:	HPE elastomer incl. HPP
Colour:	Elastomer outer glove black
Interior finish:	With integrated, chemical protection barrier glove (HPP)
Exterior finish:	Smooth
Length:	30 cm
Material thickness:	IIR 1.5 or 0.5/0.3 mm
Size:	10 (standard for protective suits; other sizes: see glove size chart or enquire)

Order no.: 2509-005
(also available as CBRN protective glove:

WIPAN B, without integrated HPPF barrier glove
Order no.: 2507-630)



Undergloves

WIPAN C – NBC protective glove

Specific advantages

- Excellent comfort and tactile feel
- Good mechanical and cold resistance due to integrated liner
- Protection against intensive exposure to corrosive solvents, acids, caustic solutions and gasses, combined with sufficient protection against physical strain (according to EN 943).

Application:

- SYKAN/SILVERFLASH protective suits
- Firefighters for unrestricted use according to EN 943
- Pharmaceutical industry and labs: maintenance and cleaning work, maintenance work in wet environments
- Mechanical industry: maintenance work in humid environment (water, oils, greases, hydrocarbons)

Approvals: according to Regulation (EU) 2016/425 and complies with standards EN 420:2003+A1:2009, EN 388:2016, EN ISO 374-1:2016+A1:2018, EN 374-2:2014, EN 374-4:2013 and EN ISO 374-5:2016

Material:	HPF elastomer
Colour:	Outer glove black
Interior finish:	With integrated liner
Exterior finish:	Smooth
Length:	30 cm
Material thickness:	Elastomer and liner approx. 1.5 mm
Size:	10 (standard for protective suits; other sizes: see glove size chart or enquire)

Order no.: 2509-001



CPS STANDARD GLOVES

WIPAN CK – THERMO NBC protective glove

Specific advantages

- Excellent comfort and tactile feel
- Good mechanical and heat and cold resistance due to integrated liner made of 100% para-aramid
- Protection against intensive exposure to corrosive solvents, acids, caustic solutions and gasses, combined with sufficient protection against physical strain (according to EN 943).

Application:

- SYKAN/SILVERFLASH protective suits
- Firefighters for unrestricted use according to EN 943
- Pharmaceutical industry and labs: maintenance and cleaning work, maintenance work in wet environments
- Mechanical industry: maintenance work in humid environment (water, oils, greases, hydrocarbons)

Approvals: according to Regulation (EU) 2016/425 and complies with standards EN 420:2003+A1:2009, EN 388:2016, EN ISO 374-1:2016+A1:2018, EN 374-2:2014, EN 374-4:2013 and EN ISO 374-5:2016

Material: HPF elastomer

Colour: Outer glove black

Interior finish: With integrated 100% PARA-ARAMID liner

Exterior finish: Smooth

Length: 30 cm

Material thickness: Elastomer and liner approx. 1.5 mm

Size: 10 (standard for protective suits; other sizes: see glove size chart or enquire)

Order no.: 2509-002



CPS STANDARD GLOVES

WIPAN CK+ – THERMO-CHEM CBRN protective glove

Specific advantages

- Excellent comfort and tactile feel
- Good mechanical and heat and cold resistance due to integrated liner made of 100% para-aramid
- Protection against intensive exposure to corrosive solvents, acids, caustic solutions and gasses, combined with sufficient protection against physical strain (according to EN 943).
- Unique HPF elastomer construction with integrated 100% PARA-ARAMID liner and chemical protection barrier (HPP)
- Combat gases (CBRN) tested

Application:

- SYKAN/SILVERFLASH protective suits
- Firefighters for unrestricted use according to EN 943
- Pharmaceutical industry and labs: maintenance and cleaning work, maintenance work in wet environments
- Mechanical industry: maintenance work in humid environment (water, oils, greases, hydrocarbons)

Approvals: according to Regulation (EU) 2016/425 and complies with standards EN 420:2003+A1:2009, EN 388:2016, EN ISO 374-1:2016+A1:2018, EN 374-2:2014, EN 374-4:2013 and EN ISO 374-5:2016

Material: HPE elastomer incl. HPP

Colour: Outer glove black

Interior finish: With integrated 100% para-aramid liner and chemical protection barrier (HPP)

Exterior finish: Smooth

Length: 30 cm

Material thickness: Elastomer and liner approx. 1.5 mm

Size: 10 (standard for protective suits; other sizes: see glove size chart or enquire)

Order no.: 2509-003



WIPAN CK PRO protective glove

This protective glove consists of a butyl underlayer of and an approximately 0.2 mm thick Viton® coating. The glove's thickness is about 0.6 mm in total. The Viton® coating is resistant to aliphatic and aromatic hydrocarbons (hexane, benzene, toluene, xylene and others), halogenated hydrocarbons (trichloroethylene, perchloroethylene, methylene chloride and others), organic and inorganic acids (diluted to concentrated) and saturated saline solutions.

Features

- Excellent resistance
- Sizes: 8–11
- Standard EN 420:2003 + A1:2009, EN 388:2016, EN ISO 374-1:2016 + A1:2018
- Test chemicals methanol (A), toluene (F), sodium hydroxide 40 % (K), sulphuric acid 96 % (L), nitric acid, 65 % (M), acetic acid 99 % (N)

- Levels according to EN 388: 2 1 2 0 A

- Outer without lining
- Coating: bromobutyl, Viton®
- Version with beaded cuff
- Colour: black

Order no.: 2509-004



WIPAN C+ SUPERLIGHT NBC protective glove

This innovative NBC protective glove features a rubber-elastomer construction with an integrated, ultra-lightweight protection barrier and a nylon lining for comfort, all firmly bonded together. The WIPAN C+ boasts the following performance characteristics:

- Next-generation chemical protection (against 18 chemicals in accordance with EN 374:2016, of which 16 in Class 6 >480 minutes and 16 out of 18 exceeding Class 2 according to ASTM F739)
- Protection against secondary hazards, such as mechanical and heat-related risks.
- Improved comfort and dexterity
- improved durability (abrasion resistance) in accordance with EN 388
- Complies with EN 407, contact heat class 1 (approved for contact heat up to 100 °C/212 °F)
- Antistatic in accordance with EN 1149-3

Material: HPE elastomer incl. HPP (silicone-free)

Colour: Outer glove black

Inner finish: with nylon lining

Exterior finish: Smooth

Length: 35 cm

Material thickness: Elastomer and liner approx. 1 mm

Size: 10 (standard for protective suits; for other sizes see glove size chart or enquire)

Order no.: 2509-006



OVERGLOVES

Overglove: Mech Black

Specific advantages

- Longer service life due to the high material thickness (puncture and abrasion resistance)
- Protection of forearm through long cuff

Application:

- As mechanical protective overglove for all TESIMAX protective suits
- As additional thermal protective overglove, also available in silver colour.
- Approved according to Regulation (EU) 2016/425 and complies with standards EN 388 - 2342 C

* Mechanical hazards (performance levels)

- a: Abrasion resistance (0-4)
- b: Cut resistance (0-5)
- c: Tear resistance (0-4)
- d: Puncture resistance (0-4)
- e: Cut resistance TDM (A-F)
- (P): Protection against impact

Material: para-aramid with silicone coating (black or silver)

Colour: black or silver

Length: approx. 42 cm

Size 12 (one size)

Order no.: 2501-224 MECH BLACK (black colour)



Overglove Mech Blue 351 (protective glove P-L/-S)

Specific advantages

- Excellent comfort and good cold protection through seamless cotton inner knit
- High resistance to oils, greases and hydrocarbons
- Suitable for food contact, except fatty foods
- Good grip due to textured surface

Application:

- POLYRAN protective suits
- As mechanical protective overglove MECH 351 for SYKAN/SILVERFLASH protective suits
- Pharmaceutical industry: maintenance and cleaning work, maintenance work in wet environments
- Mechanical industry: maintenance work in humid environment (water, oils, greases, hydrocarbons)

Approvals: according to Regulation (EU) 2016/425 and complies with standards EN 388:2016 (4.1.2.1.X); EN 374-1, Type A (K.L.M.N.P.T); EN 374-5, EN ISO 374-5:2016 and EN ISO 374-1:2016

Material: PVC

Colour: Blue

Interior finish: Textile lining

Exterior finish: Grained

Length: 30 cm

Material thickness: 1.35 cm

Size: 10 (standard for protective suits – for other sizes see the glove size chart or enquire)

Order no.: 2507-351



OVERGLOVES

Overgloves 651/652

Specific advantages

- The only butyl glove on the market featuring an exclusive Z-pattern profile for optimum grip, enabling safe handling of slippery objects.
- Additional protection for the electronic device against electrostatic discharge (ESD)
- Protection against intensive exposure to corrosive solvents, acids, caustic solutions and gasses, combined with sufficient protection against physical strain (according to EN 943).
- Combat gases (CBRN) tested

Application:

- SYKAN protective suits
- Firefighters for unrestricted use according to EN 943
- This optional protective overglove can be worn over standard gloves for enhanced protection against gases and chemicals.
- For use in the chemical industry

Approvals: according to Regulation (EU) 2016/425 and complies with standards EN 16350 (electrostatic properties: <math><1.0 \cdot 10^5</math>), EN 388:2016, EN ISO 374-1:2016+A1:2018, EN 374-2:2014, EN 374-4:2013 and EN ISO 374-5:2016

Material: HPE elastomer

Colour: Elastomer outer glove black

Interior finish: Smooth

Exterior finish: Smooth

Length: 30 cm

Material thickness: IIR 0.56 mm (651) or 0.7 mm (652)

Size: 10 (standard for protective suits; other sizes: see glove size chart or enquire)

Order no.: 2509-005

Butoflex model 651: Order no.: 2507-651

(also available in a stronger version, Butoflex 652: Order no.: 2507-652)



Overgloves

Overglove eureka 13-4HFR Heat

MATERIAL: para-aramid fabric, chloroprene composite
 Coating type: partially coated
 Cuff: Knitted cuff
 Standards: ASTM F2675, EN 388:2016, EN 407
 Protective properties: heat shielding, cut protection, voltage and arc protection

Fabric tested according to arc test method ASTM F2675. ATPV 5.8-23 Cal/cm²; printed surface on back of hand: arc tested according to ASTM F2675. 23 Cal/cm²

- Flame retardant with contact heat up to 100 °C
- SIZES: 7-11
- Pack: 1 pair, pack of 6 pairs, carton of 60 pairs
- STANDARDS: certified according to EN 388:2016 (performance level 3 X 4 3 E), CUT PROTECTION LEVEL XE, EN 407 (performance level 4 1 3 2 4 X), ASTM F2675
- Colour: green-black
- Sizes: 7-11

Order no.: 2507-134



DISPOSABLE GLOVES

Ultranitril 492 protective glove

Good mechanical resistance and long-lasting chemical protection

- Dexterity and wearing comfort due to the anatomical shape and the quality of the flock-lining
- Longer service life: excellent mechanical resistance (abrasion, puncture resistance)

Applications:

- Treating/degreasing metals with solvents
- Machining parts using cutting oil
- Handling aggressive chemical products
- Handling PVC-based glues
- Preparing coatings and varnishes
- Handling oils, solvents and detergents
- Handling plant treatment products

Properties

Material: Nitrile
 Length: 32 cm
 Thickness: 0.38 mm
 Wrist: Straight cuff edge
 Colour: green
 Inner finish: Flock-lining
 Outer finish: Embossed texture on palm
 Sizes: 6, 7, 8, 9, 10, 11
 Packaging: 1 pair/bag, 10 pairs/bag, 100 pairs/carton

Order no.: 2507-492



Overglove uvex power protect V1000

The body is at the greatest risk of electric shock when working on electrical equipment. The uvex power protect V1000 protective glove offers safe protection against electrical voltages up to 1000 V. The natural latex is highly insulating and protects the wearer from electrical discharges through the body. The glove's flexibility offers pleasant wearer comfort and an excellent tactile feel.

Features

- Anatomical fit
- Good grip feel
- Excellent flexibility
- Suitable for dry working environments
- Sizes: 7-11
- Standard EN 60903:2004-07, IEC 60903:2014
- Outer without lining
- Natural latex coating
- Version with cuff
- Colour: red

Order no.: 2507-1000*



Solo 997 protective glove

Excellent disposable protection glove

- Excellent dexterity thanks to flexibility and reduced material thickness
- Can be worn alone or as an overglove
- Recommended for oily environments in industry
- Previous name: Solo Blue 997

Applications:

- Assembly of small oily parts
- Work with composites (resins)
- Manufacturing of medicines
- Pharmaceutical preparation
- Research, analysis, handling of precision parts

Properties

Material: Nitrile
 Length: 24 cm
 Thickness: 0.1 mm
 Colour: blue
 Inner finish: Chlorinated
 Outer finish: Smooth with pebbled fingertips
 Sizes: 6, 7, 8, 9
 Packaging: 100 gloves/box; 1000 gloves/carton

Order no.: 2507-997



Barrier tape

Discover our new product development – the highly adhesive and secure SILVERFLASH TAPE chemical barrier tape.

- Protection against inorganic acids, alkalis and solvents
- Permeation data available for a wide range of chemicals
- Tested against 15 reference chemicals according to EN 943 for ET CBRN protective suits
- Highly flexible and elastic
- Protects against radiant heat due to aluminisation
- Can be used in combination with type 3, 4, 5 and 6 protective clothing for an optimum seal of the clothing, especially at the joints of the PPE, e.g. gloves and sleeves.
- Colour: silver aluminised
- Quantity: available individually packaged

Order no.: 0800-078*



Barrier tape

Topguard CBRN protective tape

- Topguard CBRN Protective Tape is an adhesive tape specifically designed for CBRN protection (against chemical, biological, radiological and nuclear hazards) at transitions and closures between suits and accessories, such as gloves, face mask and boots.
- It offers excellent resistance to industrial chemicals and chemicals and chemical warfare agents (CWA).
- Quantity: available individually packaged

Order no.: 4000-131



POLYRAN-L/-S repair tape

Description:

Article 471F is an adhesive tape in the standard colour yellow. For other colours, please enquire. This adhesive repair tape is very supple, abrasion-resistant and resistant to many solvents except ketones, chlorinated hydrocarbons and esters.

For protective suit fabric repairs:

The tape can be used to quickly and smartly seal small leaks in the fabric of TESIMAX POLYRAN protective suits. However, we recommend the original Tesimax POLYRAN repair kit for professional repairs (see this catalogue or enquire).

For protective suit visor repairs

The tape is suitable for quick, smart sealing of leaks around the inner visors of VS 5 suits. We recommend, however, a professional repair by Tesimax in these cases.

Further applications

For covering and sealing all surfaces and containers, including on round and irregularly shaped surfaces; as hazard markings, floor markings and for protection.

Order no.: 0800-079



SAFETY GOGGLES

GONDOR protective goggles

Applications & usage:

Liquids | coarse dust | molten metal

Features

- Full-view safety goggles for a wide range of applications
- Tight wraparound seal
- Indirect ventilation system prevents lens fogging
- Wide, flexible textile strap ensures a firm fit
- GONDOR CHEM: Version with elastic headband
- GONDOR NV: Particulate version without air inlets
- Available with shatter-proof polycarbonate lenses
- Can be used with a prescription lens insert using the RX-Clip

Properties

Weight: 135 g
Glass material: Polycarbonate/acetate
UV protection: 100%
Coatings: HC = scratch-proof | AF AS = antifog, antistatic, scratch resistant |
HC AF AS = scratch-proof, antifog, antistatic

Frame colours: smoke | black and red

Order no.: 4000-035



FLEXOR PLUS OUTDOOR

Features

- Extremely sturdy and flexible
- Soft construction material ensures complete absence of pressure points
- Adjustable nose bridge
- Rubberised temples ensure non-slip fit
- Additional rubber lip protects against ingress of foreign bodies from above
- Ultra-lightweight
- Unrestricted field of vision
- High impact absorption

Properties

- Weight: 24 g
- Material: polycarbonate
- UV protection: 100%

Colour: navy blue (frame) and yellow (lens)
Order no.: 9024 125 AF

Colour: white (frame) and blue (lens)
Order no.: 9025 130 AF



SAFETY GOGGLES

PREVENTOR

Features

- Small and very light full-view safety goggle (with headband)
- Non-slip temple ends
- Tight wraparound seal
- Soft nose bridge
- Indirect ventilation system
- Certified as full view safety goggles in conjunction with headband
- Prescription lenses can be inserted with the RX insert; headband ensures firm fit

Properties

- Weight: 59 g
- Material: polycarbonate
- UV protection: 100%

For spectacle wearers:

- RX insert: Prescription lenses can be easily and quickly inserted with the RX insert

COLOUR: Turquoise

Order no.: 9584-006



DEFENDOR XL

Features

- Full-view goggles for a wide range of applications
- Tight wraparound seal
- Indirect ventilation system prevents lens fogging
- Wide, adjustable textile strap ensures a firm fit
- Particularly well suitable for prominent facial features
- Unrestricted field of vision

Properties

- Weight: 79 g
- Material: polycarbonate
- UV protection: 100%

Large and very soft face pad

The DEFENDOR XL is particularly suitable for wide faces. With its very soft rubber face pad, the DEFENDOR XL offers a tight fit all round. It is particularly suitable for use in handling liquids or in environments with coarse dust.

COLOUR: ORANGE

Order no.: 9596-165



Explosion-protected (EX) lights for TESIMAX protective clothing

ADALIT® L-5 Power / L-5R Power

The rugged, reliable and ultra-light L-5 Power can be attached to most firefighter helmets.

Certified ATEX Zone 0 (gas) and 20 (dust), for use in almost all hazardous areas.

- The combination of white and red LEDs makes for one of the brightest lights available. The integrated red LED rear light makes it the safest firefighter helmet light of its kind.

ATEX:

II 1 G Ex ia IIC T4 Ga
II 1 D Ex ia IIIC T85° C Da
GAS ZONE 0 | 1 | 2
DUST ZONE 20 | 21 | 22

Degree of protection: IP67

Weight:

Rechargeable version: 125 g (including battery)
Battery version: 145 g (including AAA batteries)

Dimensions:

15 x 3.8 x 4.4 cm

Battery life:

Rechargeable version: 4 h
Battery version: up to 30 h

Lamp body material:

Antistatic thermoplastic, particularly resistant to mechanical loads, extreme temperatures and chemicals

Luminous flux:

150 lumen

On/off switch:

Ergonomic pushbutton switch for easy operation with protective gloves

Charge indicator:

Flashing signals when switching on (L-5 Power), flashing signals 15 min. before Power Off (L-5R Power)

Accessories:

Holster can be rotated 360° (art. no. B69-7271-A)

Order no.: Please enquire

L-5 Power, incl. 4 AAA alkaline batteries, B69-7280-A

L-5R Power, incl. rechargeable LiPo battery 3.7 V, B69-7281-A

Order no.: 4000-040



TESIMAX TIP ON INTEGRATION / COMPATIBILITY IN ACCORDANCE WITH DGUV 205-014

For TESIMAX reusable chemical protective suits (POLYRAN, SYKAN and SILVERFLASH):

- With arm cuff and integrated ANGEL CONNECT mount (adapter)
- With an external equipment holder, e.g. at chest height

For our single-use chemical protective suits (Tessaform, Eptaform and Duoform):

- With arm cuff and integrated ANGEL CONNECT mount (adapter)

For our firefighter protective clothing (separate catalogue)

- Helmet mount and adapter
- Equipment (head torch) holder for jacket
- Equipment holder for trousers

Contact TESIMAX for further information.



Explosion-protected (EX) lights for TESIMAX protective clothing

Adalit L-90 Power / L-90r Power

- Power LED Engine optics with 3 LEDs, max. light intensity: 300/340 lm
- Spot, flood and strobe function
- Step-lighting system, projects a beam of light directly onto the floor to illuminate the path
- Power booster function for maximum illumination with high and low light intensity settings
- Large, ergonomic pushbutton switch; backlight (red/green) indicates battery capacity
- Lithium-ion battery and LED unit can be replaced by the user
- Large retaining clip and key ring on the back

TWO MODELS AVAILABLE:

- L-90 Power with 3 AA alkaline batteries (included)
- L-90r Power with 3.7 V rechargeable lithium-ion battery (included)

Properties

- Neodymium magnet (B69-7626-A)
- Fluorescent light ring (B69-7625-A)
- Wall bracket (B69-7049-A)
- Chargers for 1, 2, 3 and 5 hand lamps
- Complies with DIN 14649
- ATEX: II 1G Ex ia IIC T4 Ga, II 2D Ex ib IIIC T135°C Db, I M1 Ex ia I MA
- GAS ZONE 0 | 1 | 2; DUST ZONE 21 | 22; MINING M1; Degree of protection: IP67
- Weight:
 - Battery version: approx. 300 g (including AA batteries),
 - Rechargeable version: approx. 300 g (including battery)
- Dimensions: 73 x 71 x 158 mm
- Lamp body material:
 - Antistatic thermoplastic, particularly resistant to mechanical loads, extreme temperatures and chemicals
 - Luminous flux:
 - L-90 Power: 300 lm / 90 lm,
 - L-90r Power: 340 lm / 90 lm
 - Battery life:
 - L-90 Power: Normal mode: 10 h; economy mode: 20 h
 - L-90r Power: Normal mode: 4 h; economy mode: 18 h
 - Rechargeable battery:
 - L-90 Power: 3 AA alkaline batteries
 - L-90r Power: Li-ion battery: 3.7 V
 - Charge indicator: When the lamp is switched on, the backlit button flashes to indicate the charging status:
 - Green:
 - 3x flashing = 100-75 %
 - 2x flashing = 75-50 %
 - 1x flashing = 50-25 %
 - Red: <25%
 - Low battery warning: main LED and backlit button flash every 15 seconds 15 minutes before the device shuts down (L-90r Power only)
- L-90 Power, B69-7605-A
- L-90r Power, B69-7606-A

Order no.: 4000-041



PROTECTIVE BOOTS

Protective boots HPE-3 (green) DUNLOP® HAZGUARD® Ultra - NFPA

The world's leading hazardous substances protection boot

- Proven chemical resistance according to the applicable global standards (NFPA 1991:2016 and EN 13832)
- Specially developed PVC material for excellent chemicals protection
- Ultragrip® Sipe non-slip outsole
- Steel toe cap & steel midsole
- Meets NFPA 1991 requirements for vapour protection equipment for hazardous substance emergencies
- Protects against liquefied gas and provides limited protection against chemical deflagration
- Protects against electric shock according to ASTM F2413-11 and CSA Z195-14

NFPA 1991:2016
ASTM F2413-11 EH
CSA Z195-14 Ω

Colour: green
Sizes: 39 to 49

Order no.: 0176-004



Top accessories (personal protective equipment) available on request.

Contact TESIMAX for an attractive special offer.

Protective boots HPE-4 (green) DUNLOP® HAZGUARD® full safety ESD – CE

Certified chemical resistance and worker protection

- Certified chemical resistance according to EN 13832-3:2006 J, K, O, P, Q, R
- Additionally certified against sulphuric acid (50 % conc.)
- Certified according to European standard (EN ISO 20345:2011 S5 SRA AN)
- PVC blend with nitrile rubber and polymers for professional chemical protection
- Self-cleaning and SRA++ slip-certified outsole
- Steel toe cap & steel midsole
- Certified protection against electrostatic discharge (ESD) (EN 61340-4-3, Class 2)

EN ISO 20345:2011 S5 SRA AN
EN 13832-3:2006
J, K, O, P, Q, R
and L (50% conc.)
ESD: EN 61340-4-3, cl 2

Colour: green
Sizes: 39 to 49

Order no.: 0176-006



PROTECTIVE BOOTS

Protective boot HPE-1 (black) Fireman SA BF – CE (FPA APPROVED, CBRN TESTED)

The HPE CHEM is our high performance F-NBR elastomer boot for chemical protective suits and is the standard on all of our protective suits (CHEMBA, SYKAN and SILVERFLASH) with replacement system.

- Certified according to EN 15090 TYPE 3 HI3; EN ISO 20345 S5 HRO SRC; EN 13832-3 J, P, Q; EN 13287
- Type 3 boots: Emergencies with hazardous substances, also for fire rescue, firefighting, goods air traffic, buildings, ships and other goods affected by fire.

- Highly chemical resistant
- Contact heat resistance (HRO): 1 minute at 300 °C
- Flame-retardance: 10 seconds according to EN ISO 15025
- Resistant against thermal flux
- Protective toe cap: Protects from impacts up to 200 joule and pressure of up to 15,000 N
- Penetration-resistant sole
- Energy-absorbent heel (20 joules)
- A: Antistatic
- Non-slip sole according to Addendum AI EN ISO 20345:2007

Colour: black
Sizes: 39 to 49

Package content: 1 pair of HPF Fireman SA BF in the size and colour of your choice

Order no.: 0176-001



Top accessories (personal protective equipment) available on request.

Contact TESIMAX for an attractive special offer.

Safety boot HPE-2 JOBGUARD® (black)

- Safety class: EN ISO 20345:2011 S5 AN
- Electrical insulation: Antistatic
- Toe protection: Steel cap
- Sole puncture protection: Steel midsole
- Outer fabric: PVC/nitrile rubber for longer service life
- Additional function: foot and ankle support
- Lining: antibacterial fabric
- Sole: PVC, conditionally resistant to oil, petrol and acids; antistatic
- SRA-CERTIFIED ANTI-SLIP OUTSOLE:
- PROTECTIVE CAP AND MIDSOLE:
- Perfect fit and comfortable to wear in everyday use.
- One hundred percent waterproof to keep your feet dry.
- OIL-RESISTANT OUTSOLE:
- SHOCK ABSORPTION: The boots feature shock absorbers in the heel region
- CHEMICALS RESISTANCE: Protection against many different chemicals.

Colour: black
Sizes: 39 to 49

Equipment supplied:
1 pair HPE JOBGUARD in the size and colour of your choice

Order no.: 0176-005



T-FIX belay systems & ergonomics upgrades

T-FIX strain relief

- T-FIX: Strain relief for CPS with forced ventilation (VSF series) Integrated hip belt with buckle for strain relief for forced ventilation system (can also be connected with T-FIX C4 eyelets, inside)

Order no.: 0250-01



T-FIX VERTICAL

The T-FIX VERTICAL-CONNECT system is a lanyard designed for the emergency rescue of persons wearing chemical protective suits. The lanyard transfers the force between an external anchor point (safety eyelet) and an internal lanyard to an internal safety harness with a neck anchor point/eyelet.

The system is housed within a gas- and liquid-tight bellows (FIX-IT mounting system). The force acts solely on the lanyards and safety harness and can therefore also be used with external, belay equipment, as no forces act on the protective suit or its material. Anchorage points on the CPS are used for the emergency rescue of chemical protective suit wearers.

The system meets the minimum requirements of EN 943 (tensile strength). If equipment that is not approved is used, safe operation may be compromised and the user may be put at risk. Compatible components:

- **T-FIX VERTICAL.1:**
Belay system with a gas-tight feed-through / Connecting carabiner (without harness), $x > 1000$ N
Order no.: 4000-012
- **T-FIX VERTICAL.2:**
Safety harness for CPS, without carabiner
Order no.: 4000-010
- **T-FIX VERTICAL.3:**
Connection loop & carabiner (T-FIX C1 & C2)
Order no.: 4000-011



• T-FIX RESCUE I (from 2015)

CPS rescue & recovery system as well as equipment eyelets in the hip area

- Horizontal equipment holders (eyelets), integrated at the hips, usable as recovery/rescue system (outside, 2 eyelets), with strain relief belt inside suit.
- The eyelets are securely integrated in the protective suit fabric and are gas-tight with a tested resistance according to EN 943: $x > 1000$ N pull-out force resistance.
- Note: Not applicable when using an F-AU forced ventilation system with a comparable strain-relief belt; strain-relief belt and Type II braces can be combined (recommended).

Order no.: 4000-013



Additional inside pockets for CPS

Two-way radio device pocket or second inner pocket for smartphone optionally available: (additional inner pocket for two-way radios and transmitter/smartphone/smart devices (right side of chest))

Order no.: 0180-010

- Radio device pocket inside (left chest)
- Radio device pocket inside (right chest)



CPS T-FIX SERIES

ANGEL CONNECT arm cuff/holder

The adapter of the ANGEL CONNECT cuff is chemicals resistant and gas-tight. The cuff is connected over the sleeve of the TESIMAX protective suit (outside). The reusable cuff can also be removed quickly.

The cuff has a unique docking feature for holding an electronic device. Please note that only compatible TESIMAX-approved (tested) devices must be installed. See also the TESIMAX protective suit user manual for further relevant safety information.

TESIMAX holder
Order no.: 0181-051



CPS T-FIX SERIES

Make new connections! The Connect (SP) tool allows additional tool holders to be attached to the TESIMAX CPS for holding tools such as gas detection devices and baton torches (EX, chemicals resistant); only for use for approved TESIMAX accessories.

It is easy to attach using adhesive or an adhesive pad. The set includes the adhesive tape for the Tool Connect universal mount and the counterpart (adhesive connector) for the device. Tool Connect SP has been tested in accordance with EN 943 in conjunction with Module C2 and DGUV 205-014. Colour: black; lightweight, durable, high-quality materials, long service life, can be fitted by end user's TESIMAX-trained CPS equipment managers.

Order no.: 0180-013



CPS T-FIX SERIES

T-FIX RESCUE II – CRASH (from 2026)

The T-FIX Rescue-Connect System II consists of two attachment points on the CPS that are used for the emergency rescue of chemical protective suit wearers. The system meets the minimum requirements of EN 943 (tensile strength).

The system consists of two vertical retention loops, reinforced with para-aramid safety thread, at least 5 cm wide across the shoulders, bonded with a fabric cover, decontaminable, chemicals resistant, lightweight, close-fitting, with silver reflective strips for increased visibility.

Order no.: 4000-015



CSA SILVERLINE

Chemical protective suits compliant with EN 943-2 are typically designed for use in extreme conditions, where the focus is on both maximum protection against hazardous substances and high functionality. One often underestimated aspect that is crucial to the safety of emergency services personnel is visibility. To improve visibility, segmented silver reflex strips can be optionally applied to the suits. We use high-quality genuine 3M materials, which have an exceptionally high reflectivity. The segmented design ensures that the suit's flexibility and freedom of movement are not restricted – a decisive advantage in complex operational situations.

High-visibility strips significantly improve safety, particularly in conditions of poor visibility, such as in the dark, in the presence of smoke, or in poorly lit industrial facilities. They allow emergency personnel to be spotted more readily, both by colleagues and by artificial light sources, which reduces the risk of accidents and improves coordination during operations.

This retrofit represents a useful addition that enhances the already high level of protection offered by a chemical protective suit compliant with EN 943-2.

Order no.: 0180-031



- CPS visor (tinted), available with:
optional tear-off visor VS 5/VSF 5 series CPS
optional tear-off visor VS 20/VSF 20 series CPS

Tear-off visor – crystal clear for VS 5/VSF 5 Order no.: 0181-038
Tear-off visor – crystal clear for VS 20/VSF 20 Order no.: 0181-039

- Back pad for SCBA protection
- Knee pads for CPS (reinforced and made of suit material)



CPS BRACES

- Type 1 braces (simple Y-shaped loops, adjustable with velcro)

Order no. 0180-000

CPS BRACES

Braces model 2 (carrying strap, pluggable into CPS if prepared, simplified donning and doffing during decontamination, with harness guide for T-FIX/T-FIX C4

Order no. 0180-001

- CPS pressure gauge holders, inside on visor, in 2 versions (small loop and large loop)



Pressure gauge holders
Large loop



Pressure gauge holders
Small loop



Braces type 1



Braces type 2

CPS padding

- Back pad for SCBA protection (velcro, standard)
Order no.: 0180-250
- Back pad for SCBA protection (push button)
Order no.: 0180-251
- CPS knee pads (reinforced with pad, made of suit material)
Order no.: 0180-003
- CPS knee pads (made of suit material)
Order no.: 0180-004

Helmets/hard hats



Helmets/hard hats



• T-FIX SAFETY FIREFIGHTER HELMET

EN 443:2008
(Helmets for fire fighting in buildings and other structures)

EN 16471:2014
(Firefighters helmets - Helmets for wildland fire fighting)

EN 16473:2014
(Firefighters helmets - Helmets for technical rescue)

EN 397
(Industrial protective helmets)

EN 12492
(Helmets for mountaineers)

Top accessories (personal protective equipment) available on request.

Contact TESIMAX for an attractive special offer.

An industrial climbing helmet in a class of its own! The INCEPTOR GRX has an ergonomic EPS thorax. A neck strap with continuous width adjustment and magnetic closure ensure outstanding wearing comfort. The gear rack, multiple helmet clips and Euroslots allow accessories to be attached. Available with or without ventilation holes and reflective stickers.

As the INCEPTOR GRX meets all performance requirements of EN 397:2012 and all requirements of the PPE Regulation, it can be CE marked and used without restriction for industrial applications.

This award-winning industrial climbing helmet impresses with its striking contours and superior wearing comfort. Its comfortable fit and ease of use make for a versatile helmet system: accessories such as headlamps, visors, hearing protection and neck guards can be easily attached, and the padding inside can be interchanged. The neck strap allows a continuous width adjustment for head circumferences from 54 to 63 cm.

- Approved safety helmet for wearing inside VS 5, VS 20, VSF 5/20 and VSF 21 series suits (please enquire)
- Tested safety helmet for wearing outside GS 3 and ESK series CPS (please enquire)
 - Alternative integrated, internal head protection for the GS 3 series (please enquire)
- Continuous size adjustment
- Magnetic closure prevents pinching of skin
- EPS thorax and PC/ABS shell for excellent absorption of high impact energies and high wearing comfort
- Interchangeable padding

Order no.: Please enquire

CPS marking

CHEST marking (black/thermal/reflective) Order no.: 0372-003

BACK marking (black/thermal/reflective) Order no.: 0372-002

SLEEVE marking (black/thermal/reflective) Order no.: 0372-001

VISOR marking (black/thermal/reflective) Order no.: 0372-001

- The markings (numbers and letters) are applied at the factory using a thermal printing process. The exact labelling must therefore be available before the start of production.
- The markings are available in 2 sizes (please enquire).
- Standard colour: Black
- Other colours on request: silver reflective or signal yellow
- The markings are is washable (see protective suit user manual) and therefore reusable.

STANDARD COLOUR BLACK

OPTIONAL COLOUR SILVER

Please specify colour code when ordering



Storage

CPS bag Basic

- Storage bag with a main compartment and a flat side pocket
- Convenient transport: ideal for all reusable CPSs
- Large main compartment for complete protective clothing
- Rugged; skids on underside
- Everything in its place: side pocket as organiser compartment

Specifications

- Internal dimensions of main compartment (L x W x H): 700 x 480 x 380 mm
- External dimensions (L x W x H): 720 x 500 x 400 mm
- Outer material: 600D polyester 2xPU coated, black
- Weight: approx. 2,000 g
- Colour: black/yellow

Order no.: 0191-013 (black/yellow)



CPS trolley bag B951-PW3

- Capacity: approx. 100 l
- Sturdy and weatherproof
- 600-denier polyester ripstop fabric coated with a TPU laminate.
- Sturdy inline wheel system
- Telescopic handle
- Webbing loops for securing extra luggage
- Removable, adjustable ergonomic shoulder straps
- Sturdy base plate
- Separate inner mesh pocket
- MeshAir Athen EXECUTIVE high-visibility vest
- ID card holder
- Dimensions: 78 cm x 37 cm x 35 cm
- Colour: black/yellow

Order no.: 0191-014 (black/yellow)



FOR OTHER TRANSPORT CONTAINERS PLEASE ENQUIRE:

- Aluminium/plastic boxes
- Splash- or waterproof
- Lightweight or rugged versions



Storage

Bag, Universal (turnout gear)

- Separated main, boot and side compartments for hygiene
- Flexible: elastic cord on the lid
- Everything in its place: front pocket with organiser compartment
- Dimensions (L x W x B): 41 x 42 x 30 cm
- Weight: approx. 1,100 g
- Volume: approx. 50 litres
- Fabric: 600D polyester
- Colour: black/yellow or red/black; please specify when ordering

Order no.: 0191-015



RAGBAG PRO – clothing bag

- Large main compartment for complete protective clothing
- Rugged: skids on underside, elastic cord on lid
- Comfortable: fully padded backpack carrying system
- Dimensions (L x W x B): 70 x 43 x 38 cm
- Weight: approx. 2,600 g
- Volume: approx. 90 litres
- Fabric: 600D polyester
- Colour: black/yellow or red/black; please specify when ordering

Order no.: 0191-016



TROLLEYBAG – clothing bag

- No heavy lifting: trolley casters for easy transport
- Everything fits: large main compartment for complete protective clothing
- Everything in its place: separate organiser compartment for small items
- Dimensions (L x W x B): 79 x 37 x 35 cm
- Weight: approx. 2950 g
- Volume: approx. 80 litres
- Fabric: 600D polyester
- Colour: black/yellow or red/black; please specify when ordering

Order no.: 0191-017



Storage

CPS storage bag (CCPS horizontal STANDARD)

- Made of chemicals resistant, robust POYLTRAN-L fabric
- With carrying handles, foldable
- With eyelet on the zip for sealing the bag
- Comfortable donning and doffing of the protective suit directly on the pocket fabric
- Dimensions: 2100 x 600 x 120 mm with all-round zip
- Colour: red

Order no.: 0191-003 (CPS horizontal)

CPS storage bag (CPS horizontal or hanging SMART)

- Design as for article 0191-003
- Plus internal loops to secure the CPS boots in the bag to prevent them slipping when stored hanging.

Order no.: 0192-000 (CPS horizontal)

CPS storage bag (CPS horizontal or hanging PLUS)

- Design as article 0192-000, plus:
- Fabric loop on zip
- Two additional carrying loops on the short sides
- Click fastener for compact carrying of the bags

Order no.: 0192-001 (CPS horizontal)



Subject to technical changes without notice; product may deviate from illustrations.

SPECIAL
ACCESSORIES

ANGEL
SENSOR SYSTEMS

ANGEL SENSOR SYSTEMS



ANGEL SENSOR SYSTEMS ORDERING DATA OVERVIEW

ANGEL LIGHT (LED sensor light system – complete for VS 5, VSF 5, VS 20, VSF 20 and VSF 21)

Order no.: 0181-022

ANGEL SIGNAL (LED WARNING SIGNAL with F-AU 1 SYSTEM for VS 20, VSF 20)

Order no.: 0181-033

ANGEL CONNECT: TESIMAX holder cuff

Order no.: 0181-051

ANGEL EYE (holder for camera adapter only for VS 20 protective suits)

Order no.: 0181-042

ANGEL SENSOR CENTRAL BATTERY

Order no.: 0181-031

- The battery pack can be used for all versions.

- Required cables and plugs are (exclusively) integrated into the protective suit ex works.

ANGEL EYE: CPS CAM ADAPTER TYPE VS 20

Adapter mount for optional camera system only for VS 20 protective suits. This optional mount allows you to integrate a camera system into the protective suit. The camera system has its own power supply, LTE-5G. The mount and camera system can be fitted in the suit and removed again very quickly. The system as a whole is explosion protected and is gas- and liquid-tight. Recommended use: unrestricted (when safety instructions are observed). Only electronic devices recommended by TESIMAX can be used in conjunction with the protective suit. The system is patented.

Order no.: 0181-042

ANGEL CONNECT arm cuff

Arm cuff for holding tactical accessories, such as gas detection devices, baton torches (EX, chemicals resistant); only for use for approved TESIMAX accessories. Angel Control-Connect has been tested in accordance with EN 943 in conjunction with Module C2 and DGUV 205-014.

Colour: black; lightweight, sturdy, high-quality materials, durable; self-assembly by TESIMAX CPS equipment managers possible.

Order no.: 0181-051



ANGEL

SENSOR SYSTEMS



ANGEL LIGHT® SYSTEM (VS 20, VSF 20 series)

The ANGEL LIGHT® SENSOR SYSTEM allows safe working even at night or in dark rooms, tunnels, underground, etc. and ensures that you have your hands free for your task. It is the world's only sensor-controlled LED suit system and is patented by TESIMAX.

- ANGEL LIGHT LED lighting system Order no.: 0181-022
- Full set
- ANGEL LIGHT LED battery pack (not charged) Order no.: 0181-031
- ANGEL LIGHT Battery charger Order no.: 0181-032
- As of 2021, ANGEL LIGHT, CONTROL and SIGNAL have a central rechargeable battery)



**SPECIAL
ACCESSORIES**

**RESPIRATORY
PROTECTION
SYSTEMS**

COMPRESSED AIR



CPS forced ventilation system F-AU

F-AU 1-10 safety standards (EN 943)

Air supply source:

- Must deliver > 300 l/min at 5.5 bars
- Recommended: Constant 800 l/min at 9 bars to operate up to four TESIMAX suits with F-AU 1-8 (may differ according to choice of F-AU).

Air pressure:

- Max. pressure inside CPS: $x < 400$ Pa (4 mbar)
- CPS exhalation valves open at: $x > 200$ Pa (2 mbar)

Air supply:

- Recommended: To EN 270:1994/to CPS manufacturer's guidelines

Air quality:

- Recommended: To EN 12021 ("breathing air")

Air supply:

- Pull-out strength of unit > 1000 N
- Pull-out strength of unit and hose > 250 N

No impairment through internal cooling

Warning and measuring device must be fitted

- Measurement of minimum air volume flow rate according to manufacturer's instructions
- Audible/visual (e.g. ANGEL SIGNAL[®])

Coupling on suit (interface) must be able to rotate and be self-locking

- F-AU 1/3 with flat-face technology; F-AU 2/4 with simple lock, F-AU 1-4: 360°

- Harness for stabilizing suit on body

Tested breathing air hoses

- Kink-resistant hose unions (steel spiral)

Cleaning and disinfection

- Connections must be easily and safely disconnectable

Compressed air – TESIMAX tip:

1. There are systems that are independent of ambient air (e.g. filters of the VSF 21 series, powered filters and head sections) and compressed air systems that are independent of ambient air (e.g. closed-circuit air lines, SCBA and cylinders in combination with our mobile cylinder carts and compressors and CPS to EN 943 Parts 1 and 2 (ET), types 1a, 1b, 1c).

2. Always observe the required air pressure (intake and outlet) according to manufacturers' guidelines (verified safety)

F-AU 1/2/4: Recommended guaranteed pressure $x > 6$ bar

F-AU 3: Recommended guaranteed pressure $2 < x < 3$ bar

3. How long are operations likely to take?

See also the applicable technical regulations, such as BGR GU-V-190 (in Germany) and manufacturer's guidelines

Fresh air during operations



The TESIMAX F-AU series for CPS ...

- provides breathing air that is much cleaner than environmental air
- enhances your wellbeing with efficient respiratory protection systems
- boosts your performance through effective breathing apparatus
- protects your health at all times to allow you to breathe easy

and therefore ...

- guarantees compliance with the strictest European standards
- provides the perfect respiratory protection for use with our PPE
- is ideal for environments in which a sufficient oxygen content in the air cannot be guaranteed

The products ...

- offer maximum mobility
- are used by many fire services and in industry
- have a proven track record



Designation	Order number
UPGRADE FOR EXTERNAL AIR SUPPLY, BREATHING AIR (VS 5, VS 20, type 1a)	
- F-AU 2: DFT (TESIMAX feedthrough) with forced ventilation option, without internal ventilation (with flat-face)	Order no.: 0250-012 A
- F-AU 2 alternative: DFT (TESIMAX feedthrough) with forced ventilation option, without internal ventilation (no flat-face)	Order no.: 0250-012 B
- F-AU 2 alternative: Complete system – DFT with internal/forced ventilation LIGHT (with flat-face)	Order no.: 0250-012 C
- F-AU 2 alternative: Complete system – DFT with internal ventilation, also available with Euro sealing nipple (not flat-face)	Order no.: 0250-012 D
UPGRADE FOR EXTERNAL AIR SUPPLY, BREATHING AIR & VENTILATION (VSF 20: Type 1c)	
- F-AU 3: Complete system – external air supply with ANGEL SIGNAL®	Order no.: 0250-013
- F-AU 3: Complete system – external air supply with visual warning indicator, external	Order no.: 0250-017
UPGRADE FOR PURE VENTILATION (VS 5, VS 20: Type 1a, GS 3/GS 3M: Type 1b)	
- F-AU 4 A: Complete system – forced air supply for ventilation with control valve, stepless (external Euro sealing nipple long CLOSE UP) Order no.: 0250-022 A	
No flat-face technology, no flat-face adapter necessary	
- F-AU 4 B with additional short, external Euro coupling (external breathing air source),	Order no.: 0250-022 B
- F-AU 4 -A: Complete system – forced air supply for ventilation with setting 0/2/30/100 l/min. The supply should be ensured via an external breathing air source (external sealing nipple, long CLOSE UP Euro nipple)	Order no.: 0250-018 C
No flat-face technology, no flat-face adapter necessary	
- F-AU 4 D: with additional CLOSE UP Euro nipple inside (second connection SCBA/only VS 5/VS 20 series),	Order no.: 0250-018 D
No flat-face technology, no flat-face adapter necessary	
- F-AU 4 E: Positive pressure airline apparatus type A with pressure gauge, flat-face nipple (outside) and 30 cm hose with flat-face nipple inside	Order no. 0250-019 E
- F-AU 4 F: Positive pressure airline apparatus type A with pressure gauge, Euro sealing nipple (outside) and 30 cm hose with Euro nipple inside	Order no. 0250-019 F
- F-AU 4 G – Internal ventilation 0-5-30-100 l/min with control valve, 1x Euro sealing nipple (outside): and 1x integrated breathing air hose (approx. 85 cm), Euro coupling (inside): f. VS 5, VS 20	Order no.: 0250-018 G
Splash guard covers for the F-AU series (optional):	
- F-AU Outer protective cover, made fully of suit fabric	Order no.: 0250-033
- F-AU sealing nipple for F-AU outside, black plastic	Order no.: 0250-100
- F-AU sealing nipple for F-AU outside, stainless steel	Order no.: 0250-101
UPGRADE FOR COMPRESSED AIR	
- F-AU 5: Compressed air control system with cooling (clip-on adapter for F-AU 1-4 – VORTEX)	Order no.: 0250-038
- F-AU 6: Compressed air control system with heating (clip-on adapter for F-AU 1-4 – VORTEX)	Order no.: 0250-039
- F-AU 10: TESIMAX Automatic changeover, e.g. for internal ventilation/forced ventilation (changeover) for VS 5 CHEMBA/cylinder cart	Order no. 0250-040
- F-AU 11: As alternative to F-AU 10: Positive pressure airline apparatus from various manufacturers with warning device	Order no.: 0250-041

- F-AU 2 A SMART internal ventilation system with internal Euro-type coupling and external Euro-type sealing nipple (covered)



- F-AU 1 or F-AU 4 T-silencer for internal ventilation



- F-AU 4 internal ventilation system

- F-AU 4 D adjustable internal ventilation with internal air connection



- F-AU TUBE (injector principle, for cooling or warmer air)



Pressure Flow Master

The CleanAIR® Pressure/Pressure Flow Master systems create a constant airflow in hoods and masks and are therefore suitable for long-term work in the harshest industrial environments. The regulator on the belt unit can adjust the amount of air coming from the central compressed air distribution system or a compressor and keeps it at a constant level regardless of changes in inlet pressure.

FUNCTIONS AND BENEFITS

- Low weight
- Energy-saving operation
- High airflow
- Low pressure warning (Pressure Flow Master)
- Optional air filtration with CleanAIR® Conditioner
- Compatible with a wide range of CleanAIR® head sections

APPLICATIONS

The system is suitable for heavy-duty industrial environments, laboratories and the chemical industry.

Certification

- EN 14594 Class 3 B
- EN 14594 Class 2 A

TECHNICAL DATA

- Air flow 160–250 l/min
- Weight: 280 g
- Inlet connection compatible with RECTUS 25, 26 and CEJN 320
- Outlet connector CA40×1/7"

PRODUCT VARIANTS

Product description	Order no.
CleanAIR® Pressure with accessories	63 00 00
CleanAIR® Flow Master with accessories	67 00 00
CleanAIR® Pressure Conditioner with mount	61 00 50



SELECTION OF SUITABLE RESPIRATORY PROTECTION

(based on determined nominal protection factor)

1. Determine the concentration of the hazardous substance at the workplace.
2. Determine the assigned workplace protection factor (workplace exposure limits, WEL). For the list of common contaminants and relevant concentration limits, see our Filter Guide (Source: EH40/2005 Workplace Exposure Limits) or contact local authorities. workplace exposure limits are occupation-specific averages (concentrations) of a pollutant in the air over a reference period without significant adverse health effects on personnel exposed to the substance. The limits can be set for two reference periods: as a time-weighted average (TWA) over eight hours, or as a short-term exposure limit (STEL) within a 15 minute timespan. Time-weighted average (TWA) – 8 hours (long term)

The TWA limits are specified to prevent effects on health from long-term or cumulative exposures. STEL (short-term exposure limit) – 15 minutes (short term) The STEL are designed to prevent effects on health from short-term exposures (e.g. eye irritation that occurs after a few minutes). If a substance is not on the workplace exposure limit (WEL) list, it does not mean that it is safe. Exposure to these substances must be limited to a level to which workers can be exposed on a daily basis without adverse health effects.

3. Determine the minimum required protection factor of the respiratory protective equipment.

Example: Filter breathing apparatus with a class TH3 hood according to EN 12941 has a maximum inward leakage of 0.2 %. Its NPF is therefore $100\% / 0.2\% = 500$.

NOMINAL PROTECTION FACTOR (NPF)

The nominal protection factor is a guideline value for respiratory protective equipment calculated on the basis of laboratory measurements. It represents the calculated maximum required respiratory protection. It is calculated by dividing 100 by the maximum total inward leakage as specified in the applicable standard.

MAXIMUM HAZARDOUS SUBSTANCE CONCENTRATION FOR A SPECIFIC BREATHING APPARATUS?

The highest permissible concentration can be determined by multiplying the nominal protection factor (as given in the NPF table) and the occupational exposure limit.

CAUTION!

If the hazardous substance is present in the form of both particles and gas, a nominal protection factor must be established for both the particles and the gas and the higher protection factor must be applied.



SPECIAL
ACCESSORIES

RESPIRATORY PROTECTION SYSTEMS

POWERED SYSTEMS



UNIMASK® PROTECTIVE HOODS

Enhance your protection by simply clipping the protective hood over your UniMask®.

Made of lightweight, microporous polypropylene or washable antistatic fabric. Available in two lengths.

Product description	Order no.
UniMask® hood, short	72 03 60
UniMask® hood, long	72 03 61
UniMask® hood, long, washable	72 03 62

COMPATIBLE WITH SAFETY HELMETS

UniMask can be used with a wide range of industrial safety helmets to provide handy combined head, face and respiratory protection.



FACE SEAL MATERIAL AND COLOUR OPTIONS

UniMask® is available with two types of face seal:

- Comfortable 3D textile
- Easy-care neoprene

Product description	Order no.
UniMask® face seal, grey	72 03 50.01
UniMask® face seal, blue	72 03 50.02
UniMask® face seal, orange	72 03 50.03
UniMask® face seal, red	72 03 50.04
UniMask® face seal, neoprene	72 03 50.08

Chemical 2F

Compact and lightweight yet powerful

The most versatile and durable breathing apparatus on the market. The compact, lightweight Chemical 2F powered air-purifying respirator is exceptionally robust, chemical resistant and meets the requirements of a high protection class. Its clever design with a smooth surface makes it easy to decontaminate by showering or submersion. The unique closing system prevents accidental contamination when the filters are changed. The intelligent airflow control ensures a constant airflow even if the filters are clogged or the battery level is low. Audible and visual alarms warn when the battery needs recharging or a filter needs replacing. Thanks to the optional high-performance battery, the air flow can be adjusted between 120 and 235 l/ min throughout the shift.

FUNCTIONS AND BENEFITS

- Compact design and low weight
- Compatible with a hood, mask or ventilated protective suit
- High mechanical and chemical resistance
- Increased ingress protection allows decontamination by shower or even full immersion (IP64/IP65/IP68)
- The full-colour display clearly shows all the relevant information – filter clogging, battery charge, airflow
- The Flow Control system maintains constant airflow regardless of the level of filter clogging or battery charge.
- Operation time up to 16 hours with Heavy Duty battery, or up to 10 hours with standard battery
- Short battery recharging time < 3 hours (standard battery)
- Audiovisual alarm
- Multilingual user interface
- Back harness available for increased comfort

APPLICATIONS

- Highly polluted industrial environments including chemical and pharmaceutical industry
- Remediation operations, laboratories
- First responders and emergency teams
- Biological protection

PRODUCT VARIANTS

Product description	Order no.
CleanAIR® Chemical 2F, incl. compression belt, lithium-ion battery, charger	51 00 00FCA

CleanAIR® Chemical 2F, incl. decontaminable belt, lithium ion battery, charger	51 00 00FDA
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The unique closing system prevents accidental contamination when the filters are changed.



HARNESS FOR MORE BACK SUPPORT AND HIGHER COMFORT

Product description	Order no.
Decontaminable belt, PVC – 2F/3F	51 00 51
Decontaminable harness, PVC – 2F/3F	51 00 52

CA-1

Ultralight hood with superior breathing protection

This short light hood is an optimal solution for respiratory protection and face protection in dusty and light chemical environments where no further mechanical protection is required. In combination with PAPR or airline systems CleanAIR® it reaches the highest level of respiratory protection. It provides a perfect fit for various head types due to adjustable headgear and comfortable elastic rubber band. The distance of the visor can be set individually, as well as the perimeter of the headgear. The light nylon fabric and spacey cut makes it pleasant to wear even for long time work. The wide panoramic visor with antifog coating ensures undisturbed view and provides basic mechanical protection of the eyes.

TECHNICAL DATA

Weight: 180 g
Material: Hood – nylon
Visor – cellulose propionate
Protection factor (NPF): 500
Hose connection: QuickLOCK™
Certification: EN 12941 TH3 to EN 14594 3A, EN 166 1 S F

FEATURES AND BENEFITS

- Superior breathing protection
- Wide visor with antifog coating
- Individual headgear settings – adjustable perimeter and distance from the visor
- Pleasant to wear due to the spacy cut and light weight durable material
- Basic mechanical eye protection to EN 166
- Practical reflective tab on the top

APPLICATIONS

This hood is suitable for use in dusty and lightly chemically contaminated environments in the pharmaceutical and chemical industry.

Short hood CA-1, orange Order no.: 0270-511 CA-1 orange
Short hood CA-1, blue Order no.: 0270-511 CA-1 blue



CA-2

Ultralight long hood with superior breathing protection

This long light hood ensures respiratory protection and protection of the head, neck and shoulders in dusty environments where no further mechanical protection is required. In combination with PAPR or airline systems CleanAIR® it reaches the highest level of respiratory protection. It provides a perfect fit for various head types due to adjustable headgear and comfortable elastic rubber band. The distance of the visor can be set individually, as well as the perimeter of the headgear. The light nylon fabric and spacey cut makes it pleasant to wear even for long time work. The wide panoramic visor with antifog coating ensures undisturbed view and provides basic mechanical protection of the eyes.

TECHNICAL DATA

Weight: 240 g
Material: Hood – nylon
Visor – cellulose propionate
Protection factor (NPF): 500
Hose connection: QuickLOCK™
Certification: EN 12941 TH3 to EN 14594 3A, EN 166 1 S F

FEATURES AND BENEFITS

- Superior breathing protection
- Wide visor with antifog coating
- Individual headgear settings – adjustable perimeter and distance from the visor
- Pleasant to wear due to the spacy cut and light weight durable material
- Basic mechanical eye protection to EN 166
- Practical reflective tab on the top
- Head, neck and shoulder protection

APPLICATIONS

This hood can be used in dusty or light chemical environments. It is suitable for spraying and painting work as well as for use in laboratories and the pharmaceutical industry.

Long hood CA-2, orange Order no.: 0270-511 CA-2 orange
Long hood CA-2, blue Order no.: 0270-511 CA-2 blue



CA-10

Superior breathing protection with high chemical resistance

This chemical resistant hood ensures respiratory protection and protection of the head, neck and shoulders in the most demanding chemical environments. In combination with PAPR or airline systems CleanAIR® it reaches the highest level of respiratory protection.

The hood has an extended service life and can be decontaminated because of the light laminated fabric with taped seams. It is still very light and comfortable thanks to the inner antiseptic fabric which absorbs sweat and provides an additional seal. It provides a perfect fit for various head types due to adjustable headgear and comfortable elastic rubber band. The distance of the visor can be set individually, as well as the perimeter of the headgear. The distance of the panoramic antifog visor and the headgear perimeter can be individually set.

TECHNICAL DATA

Weight: 220 g
Material: Hood – nylon
Visor – cellulose propionate
Protection factor (NPF): 500
Hose connection: QuickLOCK™
Certification: EN 12941 TH3 to EN 14594 3A, EN 166 1 S F

FEATURES AND BENEFITS

- Superior breathing protection
- Long life span, decontaminable
- Antiseptic inner fabric that absorbs sweat and provides extra sealing
- Wide visor with antifog coating
- Individual headgear settings – adjustable perimeter and distance from the visor
- Pleasant to wear due to the spacy cut and light weight durable material
- Basic mechanical eye protection to EN 166
- Practical reflective tab on the top

APPLICATIONS

The hood can be used in all environments demanding high durability and chemical resistance. It is suitable for spraying and painting operations as well as for use in laboratories and pharmaceutical or chemical industries.

Long hood CA-10, chemical resistant

Order no.: 0270-511 CA 10



UniMask

Light universal face shield providing the highest comfort and safety

This universal, light-weight face and respiratory mask offers the highest level of breathing protection with enhanced inner airflow regulation and a visor with excellent optical and mechanical features make this universal light face shield a true leader of its class. UniMask is light (just 380 g) and offers excellent user comfort. The inner airflow regulation allows the user to set direction and intensity of the air to be delivered to the face or directly into the breathing zone. Two variants – with soft textile and with a neoprene face seal – are available. The visor provides clear and undisturbed view of the highest quality (class 1 according to EN 166), high mechanical resistance and antifog coating. UniMask is easy to use and all spare parts are quickly and easily removable which enables fast and simple maintenance.

TECHNICAL DATA

Weight: 380 g
Material: Frame – polyamide
Face seal – neoprene or 3D polyamide knit
Visor – polycarbonate
Protection factor (NPF): 500
Hose connection: QuickLOCK™
Certification: EN 12941 TH3 to EN 14594 3B, EN 166 1 FT B K N

FEATURES AND BENEFITS

- The highest class of breathing protection TH3
- Enhanced inner airflow regulation
- Light weight – only 380 g
- Excellent optical quality – EN 166 class 1
- High mechanical resistance of the visor
- Antifog coating
- Safety helmet compatible
- Neoprene or textile face seal option
- Easy to use and adjust
- Fast and simple maintenance

APPLICATIONS

The UniMask is suitable for spraying and painting in environments with low chemical resistance requirements, such as the chemical and pharmaceutical industries and laboratories.

Face shield UniMask, grey

Face shield UniMask, blue

Face shield UniMask, orange

Face shield UniMask, red

Face shield UniMask, neoprene

Order no.: 0270-510 grey

Order no.: 0270-510 blue

Order no.: 0270-510 orange

Order no.: 0270-510 red

Order no.: 0270-510 neoprene



A new system with 5-point head harness is available from 2024, for better wearing comfort.



INNER AIRFLOW REGULATION

QUICKLY EXCHANGEABLE FACE SEAL WITH EASY MAINTENANCE

The face seal ensures secure and comfortable fit for the wearer. Thanks to a fast click-in system the face seal can be easily and quickly removed and re-attached. The face seals are machine washable and can be dried in a tumble drier.

QUICK AND EASY VISOR REPLACEMENT

Should the visor have to be replaced or separately cleaned, it can be easily removed and refitted to the hood using two simple locking knobs.

TORIC VISOR WITH AN EXCELLENT OPTICAL QUALITY

UniMask is the only universal faceshield of its class on the market with a toric visor, which offers the best class of optical quality (EN 166 class 1). The visor offers an outstanding field of vision. Its antifog, anti-scratch coating increases the mechanical durability and extends the life time of the visors significantly. It provides protection against high-speed particles with medium energy.

SAFETY HELMET COMPATIBLE

UniMask can be used with a wide range of industrial safety helmets to provide handy combined head, face and respiratory protection.



PRESSURE HOSES

Standard compressed air hose for CA Pressure – 10 m
Order no.: 61 00 30

Standard compressed air hose for CA Pressure – 25 m
61 00 38

Standard compressed air hose for CA Pressure – 50 m
61 00 39

Antistatic compressed air hose for CA Pressure – 10 m
61 00 31

Antistatic compressed air hose for CA Pressure – 25 m
61 00 33

Antistatic compressed air hose for CA Pressure – 50 m
61 00 34

Spiral compressed air hose for CA Pressure – 10 m
61 00 4



HOSES

Lightweight flexible hoses with QuickLOCK™ connection system for secure connection of the complete CleanAIR® head sections except for the masks.

Lightweight flexible hose (QuickLOCK™ – CA40x1/7")
71 00 60

Lightweight flexible hose (QuickLOCK™ – CA40x1/7" long)
71 00 60L

Rubber hose (QuickLOCK™ – CA40x1/7")
71 00 86

Rubber hose (QuickLOCK™ – Ca40x1/7" long)
71 00 86L

Hoses only compatible with masks:
Lightweight flexible hose CA40x1/7"
70 00 60

Rubber hose CA40x1/7"
70 00 86CA

Rubber hose Ca40x1/7" long
70 00 86L

Rubber hose Ca40x1/7" 90°
70 00 86R

Rubber hose Ca40x1/7" 90° long
70 00 86RL



Filters



Product code: 50 01 57/3
Type A2P3



Product code: 50 03 57/3
Type A1P3



Product code: 50 01 67/3
Type A2B2P3



Product code: 50 01 66/3
Type A2B2E2K2HgP3

Accessories

Comfort belt Super (Basic, 2F)
71 00 92

Comfort belt Standard (Basic/Pressure)
71 00 93

Comfort belt CA AerGO®
30 00 92

Komfortgürtel3F
52 00 43.1

Leather comfort belt Super (Basic, 2F)
72 00 92

Leather comfort belt CA Basic
72 00 93

Leather belt CA AerGO®
32 00 92

Padded comfort harness 2F/3F
52 00 44.1

Belt extender – extend your belt by up to 30 cm
71 00 99*

