



VSF 21 SERIES

VSF 21 made of POYLRAN-L (colour: white)
Use with Chemical 2F without UniMask –
please enquire

VSF 21 SERIES



Gas- and liquid-tight triple visor assemblage, universally chemical resistant, thermally stable and mechanically extremely robust, UV-resistant, crystal clear, antifog inner with antibacterial characteristics. 15-year long-life warranty.



Gas-tight protective material (SYKAN/SILVERFLASH) with chemical resistant, gas- and liquid-tight protective barrier foil



Viewing/function window

Powered filter unit Chemical-2F



Ultra seam (SYKAN/SILVERFLASH) Patented safety seam made of para-aramid with a chemically resistant tape cover including barrier film, facing outwards

Gas- and liquid-tight protective boots with HPE elastomers, extremely robust, antistatic, highly resistant to chemicals, safety sole – flexible and safe.



HPF ULTRA zip (SYKAN/SILVERFLASH) Gas-tight safety zip with chemical resistant, gas- and liquid-tight protective barrier film on the back of the CPS

VSF 21: liquid-tight type 3 protective suits with powered filter unit and head section

The standard equipment varies depending on the model.

- CPS (chemical protective suit) for unlimited use in firefighting, industry, works fire brigades and military.
- One-piece, liquid-tight CPS with powered filter unit (type C2F with or without integrated Uni-Mask ventilation system), which generates a permanent positive pressure inside the suit. The VSF 21 protective suit therefore offers outstanding respiratory protection (class TH3) as well as protecting the entire body from contaminants (see approvals, type 3b). The exhaled air is safely discharged from the suit via pressure relief valves.
- CPS classification according to standard: Type 3 = liquid-tight CPS
- According to EN 14605 and EN 14126/EN 12941 (C2F) standard: type 3b (TH3)

Special features

- Unique fabric structure consisting of gas-tight, chemically and thermally resistant, abrasion-resistant elastomers (TP, HPE), on robust, lightweight and super-flexible base fabrics (PA, HPA and HP para-aramid).
- SYKAN: Unique fabric structure with outward facing chemical barrier (HPP film) that reliably stops hazardous substances without affecting the base fabric as with other protective suits (REAL REUSABLE).
- P-L-S/SYKAN: Outstanding chemical protection for up to 8 h (chemicals tests according to EN 943 Parts 1 and 2) & according to 24-hour gas tests (CWA standard: Finabel 0.7 C NATO).
- Chemical permeation data list for approx. 1000 hazardous substances
- P-L-S / SYKAN: outstanding flame protection according to EN 13274-4 (approx. 850 °C) and flashover test according to ISO 13506 (SYKAN)
- SYKAN: Outstanding cold protection according to EN 943 and cryogenic tests (-80 °C down to -178 °C)
- P-L-S/SYKAN: Superior tensile and tear propagation strengths, puncture and abrasion resistance as well as seam strength offer extreme mechanical robustness and ensure the wearer's safety – according to EN 14325.
- HARMLESS MATERIALS:
 - PH-neutral behaviour, confirmed by AZO test (material colours).
 - PFOA-free and skin-friendly materials
 - Visors not made of PVC, thus no highly toxic gassing on combustion (flashover); free from heavy metals, asbestos, formaldehyde, CFCs, PCBs and PCTs
 - FREE FROM ADHESIVE: TESIMAX suits are produced without adhesives, making them extremely robust, better washable, more sustainable than other suits and safely reusable.
- Extensive range of accessories: sensors, light, forced ventilation, functional underwear, optional extras.
- Comprehensive service: professional decon system. Total Care. Safe and sustainable. Worldwide.
- Life cycle: 15 years: 10 years, then inspection; +5 years (10 years for limited use VSF 21 PE-T and PE-D/Panoramate)
- Optional: SMART STOCK with REAL REUSABLE CPS from P-L-S/SYKAN 2 (5 years maintenance-free, vacuum-packed with seal)
- Sizes: Five individual sizes (M to XXL)
- This CPS unites an excellent workmanship with high-grade materials.
- Optimum fit through range of sizes
- Perfect design also at critical points



VSF 21 made of POYLTRAN-L (colour: white)
Use with Chemical 2F without UniMask
– please enquire



Suit description, VSF 21 PE-D Duoform

• One-piece, liquid-tight CPS with powered filter unit (type C2F with or without integrated UniMask ventilation system), which generates a permanent positive pressure inside the suit. The VSF 21 protective suit therefore offers outstanding respiratory protection (class TH3) as well as protecting the entire body from contaminants (see approvals, type 3b). The exhaled air is safely discharged from the suit via pressure relief valves. With permanently integrated protective visor, liquid-tight zip with fabric labyrinth cover, with pressure relief valves (incl. high-quality HPE membrane), with footlets and drip cuff. All popular firefighter helmets and industrial hard hats can be worn under the suit. We recommend a helmet, for example according to EN 443 for firefighter helmets, EN 16473 for technical rescue, EN 397 for industrial helmets and EN 12492 for mountaineering helmets (see accessories).

DUOFORM FABRIC

• Highly chemical resistant multi-layer foil laminate combined with a mechanically durable PA matrix base fabric

TOP SEAM

• Seam technology: high-quality stitched, chemically and thermally robust thermo-taped seam covering

POWERED FILTER UNIT (optional)

- The internal C2F powered filter unit with integrated TFT display (filter saturation, battery power) is easy to use with the suit.
 - The unique air distribution system (with UniMask as standard and other models optionally available) ensures permanently fog-free vision, prevents heat build-up and can be used by all wearers.
 - C2F powered filter unit: breathing apparatus weighing up to 3 kg and without breathing resistance, according to G26 classification, German AMR and DGUV regulations); or the powered filter unit is used unchanged with hood/UniMask in combination with a class 3 protective suit.
 - The blower supplies the UniMask ventilation system with an adjustable fresh air flow of 120–235 l/min via the breathing air hose.
 - For further information, see description of the TESIMAX C2F powered filter unit.

FAN PROTECTION FILTER

- An extensive range of protective filters is available for every application (particle and gas protection filters, incl. C2F ABEK2P3 combat gas filters as well as optional filter/splash protection covers).
 - The VSF 21 can be used in contaminated environments, provided that the minimum oxygen concentration is greater than 17 % by volume, to differentiate it from SCBA (self-contained breathing apparatus).
 - For further information, see description of the TESIMAX C2F powered filter unit.

EQUIPMENT

• Extremely chemically resistant, flexible interchangeable visor, mechanically robust, firmly fitted to/integrated in the suit and permanent antifog coating on the inside.
 • No toxic gassing during combustion (deflagration, flashover) to protect the suit wearer.

ZIP FASTENER

• With zip, protected by a fabric labyrinth cover (with adhesive strip). Chemicals resistant, sewn with protective suit and firmly welded on with the TOP seam covering (not glued).

PROTECTIVE GLOVES

• Standard protective gloves: NEOTOP – standard size: 10; NBC protective gloves; black
 -> With integrated 5-finger cotton undergloves enclosed
 -> The glove sizes are based on the protective suit sizes

FOOTLETS with drip cuffs, PROTECTIVE BOOTS

• Footlets made of suit fabric with drip cuff
 -> Optional: for protective boots, please enquire
 -> The glove sizes are based on the protective suit sizes

INTEGRATED EQUIPMENT

• Elastomer sealing rings for secure connection to the filters (external) and fans (internal).

APPLICATIONS

• Pharmaceuticals, clinics, military and civil defence, industry, maritime and fire services (unlimited)

Comprehensive protection

- CBRN risks: Chemical, biological, radioactive, nuclear
 -> CBRN protective suit
 - NBC risks: Nuclear, biological, chemical
 -> NBC protective suit
 - Industry: Gases, liquids, aerosols, chemicals, cryogenic media (hydrogen, nitrogen) and deflagration (flashover)
 - Defence: Combat gases

OVERVIEW OF STANDARDS – APPROVALS (according to PPE Regulation (EU) 2016/425)

• EN ISO 13688 = protective clothing – General requirements
 • EN 14605 (Duoform): type 3 protective clothing (liquid-tight protective suit)
Advanced material tests:
 • EN 14126 = protection against biological agents “B”
 • EN 1073-2 = particle-tight protective clothing
 • EN 1149 = antistatic properties, dissipative (static inhibitor, ex factory)
 • CBRN Finabel 0.7 GAS-TESTED (gases – complete protective suit with components)
 -> Note: The current product certificate and technical product documentation apply.

SIZES

• Five individual sizes (M to XXL)
 • Optimum fit through range of sizes

PRODUCT REFERENCE

• VSF 21 PE-D
 • COUNTRY OF ORIGIN: GERMANY
 • WEIGHT: less than 2 kg without extras, in size L; with footlets/boots: approx. 1.75 kg

COLOUR: ■ signal yellow

LIFE CYCLE

10 years

ORDERING DATA

Sizes 150 to 165 cm	Order no.: 0450-163 S
Sizes 160 to 175 cm	Order no.: 0450-163 M
Sizes 170 to 185 cm	Order no.: 0450-163 L
Sizes 180 to 190 cm	Order no.: 0450-163 XL (standard)
Sizes 190 to 200 cm	Order no.: 0450-163 XXL

Note: see size charts (standard gloves: size 10 (see size chart) or standard protective boots: size 46 (43–47))

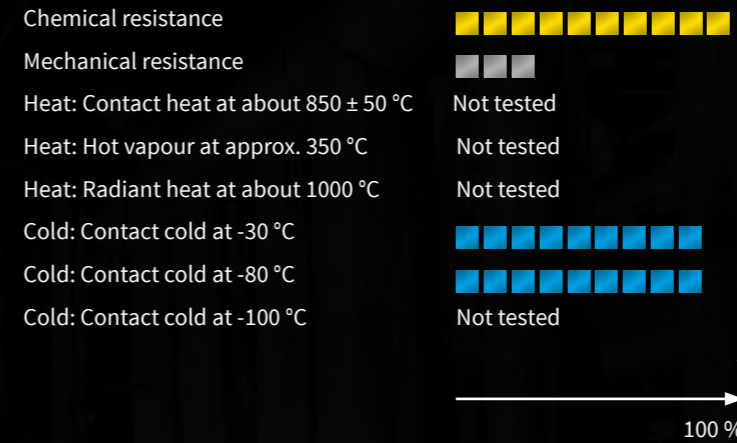
ALL PRODUCTS INCLUDE

• Film packaging
 • Technical documentation: QR instruction manual and online Tesimax Data Service (environmentally friendly)
 Optional: different textile storage bag (hanging or prone storage)
 Optional: plastic CPS transport boxes

OPTIONAL FEATURES AND ACCESSORIES

• CHEMICAL 2F PAPR with FILTERS & ACCESSORIES
 -> see Accessories.
 • For further accessories and options, see CPS Accessories.

Property rating, VSF 21 PE-D



Subject to technical changes without notice; product may deviate from illustrations; system with UniMask



Suit description, VSF 21 PE-T Tessaform

• One-piece, liquid-tight CPS with powered filter unit (type C2F with or without integrated UniMask ventilation system), which generates a permanent positive pressure inside the suit. The VSF 21 protective suit therefore offers outstanding respiratory protection (class TH3) as well as protecting the entire body from contaminants (see approvals, type 3b). The exhaled air is safely discharged from the suit via pressure relief valves. With permanently integrated protective visor, liquid-tight zip with fabric labyrinth cover, with pressure relief valves (incl. high-quality HPE membrane), with footlets and drip cuff. All popular firefighter helmets and industrial hard hats can be worn under the suit. We recommend a helmet, for example according to EN 443 for firefighter helmets, EN 16473 for technical rescue, EN 397 for industrial helmets and EN 12492 for mountaineering helmets (see accessories).

TESSAFORM FABRIC

• Highly chemical resistant multi-layer foil laminate combined with a mechanically reinforced PP matrix base fabric

TOP SEAM

• Seam technology: high-quality stitched, chemically and thermally robust thermo-taped seam covering

POWERED FILTER UNIT

- The internal C2F powered filter unit with integrated TFT display (filter saturation, battery power) is easy to use with the suit.
 - The unique air distribution system (with UniMask as standard and other models optionally available) ensures permanently fog-free vision, prevents heat build-up and can be used by all wearers.
 - C2F powered filter unit: breathing apparatus weighing up to 3 kg and without breathing resistance, according to G26 classification, German AMR and DGUV regulations; or the powered filter unit is used unchanged with hood/UniMask in combination with a class 3 protective suit.
 - The blower supplies the UniMask ventilation system with an adjustable fresh air flow of 120–235 l/min via the breathing air hose.
 - For further information, see description of the TESIMAX C2F powered filter unit.

FAN PROTECTION FILTER

- An extensive range of protective filters is available for every application (particle and gas protection filters, incl. C2F ABEK2P3 combat gas filters as well as optional filter/splash protection covers).
 - The VSF 21 can be used in contaminated environments, provided that the minimum oxygen concentration is greater than 17 % by volume, to differentiate it from SCBA (self-contained breathing apparatus).
 - For further information, see description of the TESIMAX C2F powered filter unit.

EQUIPMENT

• Extremely chemically resistant, flexible interchangeable visor, mechanically robust, firmly fitted to/integrated in the suit and permanent antifog coating on the inside.
 • No toxic gassing during combustion (deflagration, flashover) to protect the suit wearer.

ZIP FASTENER

• With zip, protected by a fabric labyrinth cover (with adhesive strip). Chemicals resistant, sewn with protective suit and firmly welded on with the TOP seam covering (not glued).

PROTECTIVE GLOVES

• Standard protective gloves: NBC barrier gloves – Standard size: 10
 -> With integrated 5-finger cotton undergloves enclosed
 -> Optionally with elastomer overgloves for mechanical and chemical protection
 -> The glove sizes are based on the protective suit sizes

FOOTLETS with drip cuffs, PROTECTIVE BOOTS

• Footlets made of suit fabric with drip cuff
 -> Optional: for protective boots, please enquire
 -> The glove sizes are based on the protective suit sizes

INTEGRATED EQUIPMENT

• Elastomer sealing rings for secure connection to the filters (external) and fans (internal).

APPLICATIONS

• Pharmaceuticals, clinics, military and civil defence, industry, maritime and fire services (unlimited)

Comprehensive protection

- CBRN risks: Chemical, biological, radioactive, nuclear
 > CBRN protective suit
 - NBC risks: Nuclear, biological, chemical
 -> NBC protective suit
 - Industry: Gases, liquids, aerosols, chemicals, cryogenic media (hydrogen, nitrogen) and deflagration (flashover)
 - Defence: Combat gases

OVERVIEW OF STANDARDS – APPROVALS

(according to PPE Regulation (EU) 2016/425)

• EN ISO 13688 = protective clothing – General requirements
 • EN 14605 (Duoform): type 3 protective clothing (liquid-tight protective suit)
Advanced material tests:
 • EN 14126 = protection against biological agents “B”
 • EN 1073-2 = particle-tight protective clothing
 • EN 1149 = antistatic properties, dissipative (static inhibitor, ex factory)
 • CBRN Finabel 0.7 GAS-TESTED (gases – complete protective suit with components)
 -> Note: The current product certificate and technical product documentation apply.

SIZES

• Five individual sizes (M to XXL)
 • Optimum fit through range of sizes

PRODUCT REFERENCE

• VSF 21 PE-T
 • COUNTRY OF ORIGIN: ROMANIA
 • WEIGHT: less than 2 kg without extras, in size L; with footlets/boots: approx. 1.75 kg

• Colour: grey

LIFE CYCLE

10 years

ORDERING DATA

Sizes 150 to 165 cm	Order no.: 0450-166 S
Sizes 160 to 175 cm	Order no.: 0450-166 M
Sizes 170 to 185 cm	Order no.: 0450-166 L
Sizes 180 to 190 cm	Order no.: 0450-166 XL standard)
Sizes 190 to 200 cm	Order no.: 0450-166 XXL

ALL PRODUCTS INCLUDE

• Film packaging
 • Technical documentation: QR instruction manual and online Tesimax Data Service (environmentally friendly)
 Optional: different textile storage bag (hanging or prone storage)
 Optional: plastic CPS transport boxes

OPTIONAL FEATURES AND ACCESSORIES

• CHEMICAL 2F PAPR with FILTERS & ACCESSORIES
 -> see Accessories.
 • For further accessories and options, see CPS Accessories.

Property rating, VSF 21 PE-T

Chemical resistance	
Mechanical resistance	
Heat: Contact heat at about 850 ± 50 °C	Not tested
Heat: Hot vapour at approx. 350 °C	Not tested
Heat: Radiant heat at about 1000 °C	Not tested
Cold: Contact cold at -30 °C	
Cold: Contact cold at -80 °C	
Cold: Contact cold at -100 °C	Not tested

100 %



Subject to technical changes without notice; product may deviate from illustrations; system with UniMask
 Use with Chemical 2F without UniMask – please enquire



Suit description, VSF 21 POLYRAN L-S

• One-piece, liquid-tight CPS with powered filter unit (type C2F with or without integrated UniMask ventilation system), which generates a permanent positive pressure inside the suit. The VSF 21 protective suit therefore offers outstanding respiratory protection (class TH3) as well as protecting the entire body from contaminants (see approvals, type 3b). The exhaled air is safely discharged from the suit via pressure relief valves. With permanently integrated VS 5 triple visor (with mechanical protection visor, chemical barrier and permanent antifog coating on the inside), liquid-tight, gas-tight zip (130 cm) with optional fabric labyrinth cover, with pressure relief valves (incl. high-quality HPE membrane), permanently integrated protective gloves/boots, optionally with footlets and drip cuff. All popular firefighter helmets and industrial hard hats can be worn under the suit. We recommend a helmet, for example according to EN 443 for firefighter helmets, EN 16473 for technical rescue, EN 397 for industrial helmets and EN 12492 for mountaineering helmets (see accessories).

POLYRAN®-L-S FABRIC

• Extremely robust base fabric (PA) coated on both sides with POLYRAN, coated with performance thermoplastic (Performance TP) and permanently sealed with a special varnish (and fungicidal coating).
 • Extremely light-weight and flexible
 • Reusable, washable, very good mechanical properties (wear-, tear- and puncture-resistant)
 • Excellent chemical resistance to most acids and alkalis
 • Approvals: Cat. 3 Type 3-B, antistatic, liquid-tight protective clothing to EN 14605:2005, and extended material tests according to EN 14126 (B), EN 1149, EN 1073-2

TOP SEAM

• Seam technology: high-quality stitched (para-aramid thread) and thermo-fused seam covering

POWERED FILTER UNIT (optional)

- The internal C2F powered filter unit with integrated TFT display (filter saturation, battery power) is easy to use with the suit.
 - The unique UniMask air distribution system ensures permanently fog-free vision, prevents heat build-up and can be used by all wearers.
 - C2F powered filter unit: breathing apparatus weighing up to 3 kg and without breathing resistance, according to G26 classification, German AMR and DGUV regulations); or the powered filter unit is used unchanged with hood/UniMask in combination with a class 3 protective suit.
 - The blower supplies the UniMask ventilation system with an adjustable fresh air flow of 120–235 l/min via the breathing air hose.
 - For further information, see description of the TESIMAX C2F powered filter unit.

FAN PROTECTION FILTER

- An extensive range of protective filters is available for every application (particle and gas protection filters, incl. C2F ABEK2P3 combat gas filters as well as optional filter/splash protection covers).
 - The VSF 21 can be used in contaminated environments, provided that the minimum oxygen concentration is greater than 17 % by volume, to differentiate it from SCBA (self-contained breathing apparatus).
 - For further information, see description of the TESIMAX C2F powered filter unit.

EQUIPMENT

• VISOR: Extremely chemically resistant, flexible interchangeable visor (VS 5), mechanically robust, firmly fitted to/integrated in the suit and permanent antifog coating on the inside.
 • No toxic gassing during combustion (deflagration, flashover) to protect the suit wearer.
 • Triple visor assemblage for three times the safety.
 • 15-year guarantee: on crystal clear vision through the visor with maximum light transmission (>90%).
 -> Optional: Self-adhesive, exchangeable tear-off visor with lug (included: with VS 20 SILVERFLASH®)

ZIP FASTENER

• With liquid- and gas-tight P-L-S elastomer zip (130 cm), chemicals and thermally resistant, sewn with protective suit and permanently welded (not glued) to TOP seam cover. Closes from bottom to top for safety. Zip on the right side.
 -> Optional fabric labyrinth cover

PROTECTIVE GLOVES

• Standard interchangeable protective gloves: MECH BLUE 351 – standard size 10, NBC protective glove with integrated cotton lining; colour: blue
 -> For other sizes please enquire.
 -> Alternative protective gloves please enquire
 • Standard WT protective gloves: Steel glove change system
 -> Alternative: Quick-lock glove system

PROTECTIVE BOOTS

• Standard interchangeable protective boot: HPF CHEM POLYRAN ACIFORT® – standard size 46 HPF elastomer protective boot according to EN ISO 20345 S5 SRA AN; colour: black
 -> Other sizes: 43 to 47 (please specify when ordering)
 -> Alternatively: protective boots: HPE ULTRA-CHEM-GREEN HAZGUARD® / HPE ULTRA-CHEM-BLACK SA-BF (FPA)
 -> Alternatively: footlets made of suit material with drip cuff

INTEGRATED EQUIPMENT

• Permanently integrated, exchangeable standard braces for size adjustment (type 1)
 • Radio device pocket, inside

APPLICATIONS

• Pharmaceuticals, clinics, military and civil defence, industry, maritime and fire services (unlimited)

Comprehensive protection

- CBRN risks: Chemical, biological, radioactive, nuclear
 -> CBRN protective suit
 - NBC risks: Nuclear, biological, chemical
 -> NBC protective suit
 - Industry: Gases, liquids, aerosols, chemicals, cryogenic media (hydrogen, nitrogen) and deflagration (flashover)
 - Defence: Combat gases

OVERVIEW OF STANDARDS – APPROVALS (according to PPE Regulation (EU) 2016/425)

For SYKAN® 2 and POLYRAN-L-S suits:
 • EN ISO 13688 = protective clothing – General requirements
 • EN 14605 (POLYRAN-L-S and SYKAN): type 3 protective clothing (liquid-tight protective suit)

Advanced material tests:
 • EN 14126 = protection against biological agents “B”
 • EN 1073-2 = particle-tight protective clothing
 • EN 1149 = antistatic properties, dissipative (static inhibitor, ex factory)
 • CBRN Finabel 0.7 GAS-TESTED (gases – complete protective suit with components)
 -> Note: The current product certificate and technical product documentation apply.

SIZES: Five individual sizes (M to XXL)
 • Optimum fit through range of sizes

PRODUCT REFERENCE

• VSF 21 POLYRAN®-L(-S) • COUNTRY OF ORIGIN: GERMANY
 • WEIGHT: approx. 4 kg without extras, in size L, with footlets/boots: approx. 1.75 kg
 • COLOUR: ■ Signal yellow (outer, P-L), ■ signal red (outer, P-S)

SERVICE LIFE:

15 years: 10 years, then inspection for an additional 5 years
 -> Optional: SMART STOCK (5 years maintenance-free, vacuum packaged with seal)

ORDERING DATA

Sizes 150 to 165 cm	Order no.: 0450-151 S
Sizes 160 to 175 cm	Order no.: 0450-151 M
Sizes 170 to 185 cm	Order no.: 0450-151 L
Sizes 180 to 190 cm	Order no.: 0450-151 XL

(standard)
 Sizes 190 to 200 cm, order no.: 0450-151 XXL
 Note: see size charts (standard gloves: size 10 (see size chart) or standard protective boots: size 46 (43–47))
 TIP: Also available in the even more rugged, durable POLYRAN-S in sizes S – XXL. For order no., please enquire.

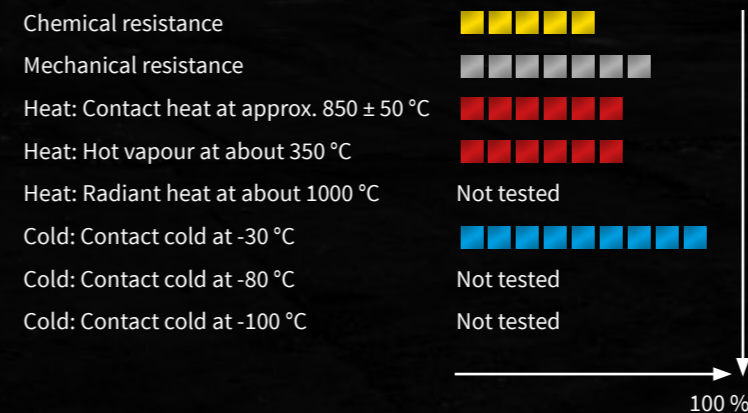
ALL PRODUCTS INCLUDE

• See all other protective suits

OPTIONAL FEATURES AND ACCESSORIES

• CHEMICAL 2F PAPR with FILTERS & ACCESSORIES
 -> see Accessories.
 • For further accessories and options, see CPS Accessories.

Property rating, VSF 21 POLYRAN-L-S





Suit description, VSF 21 SYKAN 2

• One-piece, liquid-tight CPS with powered filter unit (type C2F with or without integrated UniMask ventilation system), which generates a permanent positive pressure inside the suit. The VSF 21 protective suit therefore offers outstanding respiratory protection (class TH3) as well as protecting the entire body from contaminants (see approvals, type 3b). The exhaled air is safely discharged from the suit via pressure relief valves. With permanently integrated VS 5 triple visor (with mechanical protection visor, chemical barrier and permanent antifog coating on the inside), liquid-tight, gas-tight zip (130 cm) with optional fabric labyrinth cover, with pressure relief valves (incl. high-quality HPE membrane), permanently integrated protective gloves/boots, optionally with footlets and drip cuff. All popular firefighter helmets and industrial hard hats can be worn under the suit. We recommend a helmet, for example according to EN 443 for firefighter helmets, EN 16473 for technical rescue, EN 397 for industrial helmets and EN 12492 for mountaineering helmets (see accessories).

SYKAN® 2 FABRIC

• The gas- and liquid-tight, chemical resistant fabric structure consists of four layers. The fabric has a robust high-performance base fabric (HPA) coated on both sides with chemically resistant, abrasion-resistant high-performance elastomers (HPE). The outside has a signal colour, the inside is grey. In addition, the fabric structure features a unique chemical barrier (HPP film), facing outwards, above the base fabric. SYKAN® 2 fabric is quiet and is more comfortable to wear than the stiffer foil protective suits.

ULTRA SEAM

• Seam technology: high quality sewn with chemically and thermally resistant para-aramid thread. External seam cover with a welded high-performance elastomer tape (HPE), i.e. thermo-welded to the fabric. The tape has a unique, integrated chemical barrier (HPP film) similar to the protective suit fabric.

POWERED FILTER UNIT (optional)

- The internal C2F powered filter unit with integrated TFT display (filter saturation, battery power) is easy to use with the suit.
 - The unique UniMask air distribution system ensures permanently fog-free vision, prevents heat build-up and can be used by all wearers.
 - C2F powered filter unit: breathing apparatus weighing up to 3 kg and without breathing resistance, according to G26 classification, German AMR and DGUV regulations); or the powered filter unit is used unchanged with hood/UniMask in combination with a class 3 protective suit.
 - The blower supplies the UniMask ventilation system with an adjustable fresh air flow of 120–235 l/min via the breathing air hose. For further information, see description of the TESIMAX C2F powered filter unit.

FAN PROTECTION FILTER

- An extensive range of protective filters is available for every application (particle and gas protection filters, incl. C2F ABEK2P3 combat gas filters as well as optional filter/splash protection covers).
 - The VSF 21 can be used in contaminated environments, provided that the minimum oxygen concentration is greater than 17 % by volume, to differentiate it from SCBA (self-contained breathing apparatus).
 -> For further information, see description of the TESIMAX C2F powered filter unit.

EQUIPMENT

• VISOR: Extremely chemically resistant, flexible interchangeable visor (VS 5), mechanically robust, firmly fitted to/integrated in the suit and permanent antifog coating on the inside.
 • No toxic gassing during combustion (deflagration, flashover) to protect the suit wearer.
 • Triple visor assemblage for three times the safety.
 • 15-year guarantee: on crystal clear vision through the visor with maximum light transmission (>90%).
 -> Optional: Self-adhesive, exchangeable tear-off visor with lug (included: with VS 20 SILVERFLASH®)

ZIP FASTENER

• With liquid- and gas-tight P-L-S elastomer zip (130 cm), chemicals and thermally resistant, sewn with protective suit and permanently welded (not glued) to TOP seam cover. Closes from bottom to top for safety. Zip on the right side.
 > Optional fabric labyrinth cover

PROTECTIVE GLOVES

• Standard interchangeable protective gloves: MECH BLUE 351 – standard size 10, NBC protective glove with integrated cotton lining; colour: blue
 -> For other sizes please enquire.
 -> Alternative -> For other protective gloves please enquire
 • Standard WT protective gloves: Steel glove change system
 -> Alternative: Quick-lock glove system

PROTECTIVE BOOTS

• Standard interchangeable protective boot: HPF CHEM POLYRAN ACIFORT® – standard size 46 HPF elastomer protective boot according to EN ISO 20345 S5 SRA AN; colour: black
 -> Other sizes: 43 to 47 (please specify when ordering)
 -> Alternatively: protective boots: HPE ULTRA-CHEM-GREEN HAZGUARD® / HPE ULTRA-CHEM-BLACK SA-BF (FPA)
 -> Alternatively: footlets made of suit material with drip cuff

INTEGRATED EQUIPMENT

• Permanently integrated, exchangeable standard braces for size adjustment (type 1)
 • Radio device pocket, inside

APPLICATIONS: Pharmaceuticals, clinics, military and civil defence, industry, shipping and fire brigades (unlimited)

Comprehensive protection

- CBRN risks: Chemical, biological, radioactive, nuclear
 -> CBRN protective suit
 - NBC risks: Nuclear, biological, chemical
 -> NBC protective suit
 - Industry: Gases, liquids, aerosols, chemicals, cryogenic media (hydrogen, nitrogen) and deflagration (flashover)
 - Defence: Combat gases

OVERVIEW OF STANDARDS – APPROVALS (according to PPE Regulation (EU) 2016/425)

For SYKAN® 2 and POLYRAN-L-S suits:
 • EN ISO 13688 = protective clothing – General requirements
 • EN 14605 (POLYRAN-L-S and SYKAN): type 3 protective clothing (liquid-tight protective suit)

Advanced material tests:

• EN 14126 = protection against biological agents “B”
 • EN 1073-2 = particle-tight protective clothing
 • EN 1149 = antistatic properties, dissipative (static inhibitor, ex factory)
 • CBRN Finabel 0.7 GAS-TESTED (gases – complete protective suit with components)
 -> Note: The current product certificate and technical product documentation apply.

SIZES: Five individual sizes (M to XXL)

• Optimum fit through range of sizes

PRODUCT REFERENCE

• VSF 21 SYKAN® 2 • COUNTRY OF ORIGIN: GERMANY
 • WEIGHT: approx. 5.5 kg without extras, in size L, with footlets/boots: approx. 1.75 kg

COLOUR: ■ signal orange (outer) or ■ Nato olive (outer)

SERVICE LIFE: 15 years: 10 years, then inspection for a 5 year extension -> optional: SMART STOCK (5 years maintenance free, vacuum packed with seal)

ORDERING DATA

> Note: see size charts (standard gloves: size 10 (see size chart) or standard protective boots: size 46 (43–47))

Sizes 150 to 165 cm	Order no.: 0450-212 S
Sizes 160 to 175 cm	Order no.: 0450-212 M
Sizes 170 to 185 cm	Order no.: 0450-212 L
Sizes 180 to 190 cm	Order no.: 0450-212 XL (standard)
Sizes 190 to 200 cm	Order no.: 0450-212 XXL

Note: see size charts (standard gloves: size 10 (see size chart) or standard protective boots: size 46 (43–47))
 TIP: Also available in the even more rugged, durable POLYRAN-S in sizes S – XXL. For order no., please enquire.

ALL PRODUCTS INCLUDE

• Participation in TESIMAX SERVICEPOOL for reusable protective suits, worldwide
 • Participation in TESIMAX real-time training (RTT) for reusable protective suits, available in Germany

OPTIONAL FUNCTIONS AND ACCESSORIES -> see Accessories.

Property rating, VSF 21 SYKAN 2:

Chemical resistance	■■■■■■■■■■
Mechanical resistance	■■■■■■■■
Heat: Contact heat at approx. 850 ± 50 °C	■■■■■■■■
Heat: Hot vapour at about 350 °C	■■■■■■■■
Heat: Radiant heat at about 1000 °C	Not tested
Cold: Contact cold at -30 °C	■■■■■■■■■■
Cold: Contact cold at -80 °C	■■■■■■■■■■
Cold: Contact cold at -100 °C	Not tested

100 %





Suit description, Panoramate

Exceptional full body and respiratory protection for highly contaminated environments. Designed for use with powered air-purifying respirator CleanAIR® Chemical 2F. Superior durability, light weight, excellent field of vision and freedom of breathing guarantee exceptional comfort for the user.

FUNCTIONS AND BENEFITS

- The panoramic visor provides a wide field of vision
- Transverse front entry opening with zip. Storm flap with double zip
- Elastic ribbing on waist and chest for better mobility.
- Fully taped seams
- Easy, secure connection of coverall and powered filter unit thanks to special garment grommets

APPLICATIONS

- First responders and emergency teams
- Viral and biological protection
- Remediation operations
- Nuclear industry
- Laboratories
- Pharmaceutical industry

TECHNICAL DATA, 2550 Lite

• EN 12941+A1:2009	TH3
• EN 1073-1:2019-3	Class 3
• EN 14605+A1-1:2009	Type 4
• EN ISO 13982-1:2004	Type 5
• EN 13034+A1:2009	Type 6
• EN 14126:2004	4-B, 5-B, 6-B

TECHNICAL DATA, 3550 Lite

• EN 12941+A1:2009	TH3
• EN 1073-1:2019-3	Class 3
• EN 14605+A1-1:2009	Types 3 and 4
• EN ISO 13982-1:2004	Type 5
• EN 13034+A1:2009	Type 6
• EN 14126:2004	3-B, 4-B, 5-B, 6-B

TWO PRODUCT VARIANTS

Panoramate 3550 Lite

This coverall is made of antistatic CPM® material and provides optimal protection against solid and liquids aerosols and liquid chemicals at pressure up to 2 bars, including radioactive and biological contamination.

Panoramate 2550 Lite

This coverall is made of antistatic CMF material and provides optimal protection against solid and liquids aerosols including radioactive and biological contamination.

PANORAMATE 2550/3550 LITE FUNCTIONS

Unrestricted vision

- The panoramic visor provides a wide field of vision

Easy to put on and take off through transverse front entry opening with zip

- Storm flap with double zip

Free movement

- Elastic ribbing on waist and chest for better mobility

Airtight

- Fully taped seams

3 PANORAMATE 2550/3550 LITE FEATURES

Safety

- Emergency rip cord

Exhalation valve

- Maintains optimal pressure in the suit for full range of movement.

Tight connection

- Double elasticated cuffs.

Secure interface

- Easy, secure connection of coverall and powered filter unit thanks to special garment grommets.

Tight connection

Attached socks with boot flaps.

COLOUR

- ■ Signal yellow (outer)

ORDERING DATA

CleanAIR® Panoramate 2550 lite, sizes S, M, L, XL

Sizes 150 to 165 cm	Order no.: 0450-401 S
Sizes 160 to 175 cm	Order no.: 0450-401 M
Sizes 170 to 185 cm	Order no.: 0450-401 L
Sizes 180 to 190 cm	Order no.: 0450-401 XL (standard)

CleanAIR® Panoramate 3550 lite, sizes S, M, L, XL

Sizes 150 to 165 cm	Order no.: 0450-400 S
Sizes 160 to 175 cm	Order no.: 0450-400 M
Sizes 170 to 185 cm	Order no.: 0450-400 L
Sizes 180 to 190 cm	Order no.: 0450-400 XL (standard)

POWERED FILTER UNIT (OPTIONAL)

- The internal C2F powered filter unit with integrated TFT display (filter saturation, battery power) is easy to use with the suit.

- The unique air distribution system ensures permanently fog-free vision, prevents heat build-up and can be used by all wearers.

- C2F powered filter unit: breathing apparatus weighing up to 3 kg and without breathing resistance, according to G26 classification, German AMR and DGUV regulations); or the powered filter unit is used unchanged with hood/UniMask in combination with a class 3 protective suit.

- The blower supplies the UniMask ventilation system with an adjustable fresh air flow of 120–235 l/min via the breathing air hose. For further information, see description of the TESIMAX C2F powered filter unit.

FAN PROTECTION FILTER

- An extensive range of protective filters is available for every application (particle and gas protection filters, incl. C2F ABEK2P3 combat gas filters as well as optional filter/splash protection covers).

- The VSF 21 suit can be used in contaminated environments, provided that the minimum oxygen concentration is greater than 17 % by volume, to differentiate it from SCBA (self-contained breathing apparatus).

-> For further information, see description of the TESIMAX C2F powered filter unit.

