



# VSFF 5 VSFF 20 SERIES

# VSF 5/20 SERIES



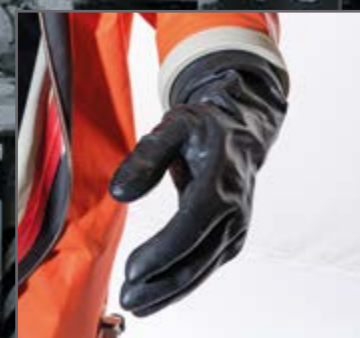
Gas- and liquid-tight triple visor assemblage, universally chemical resistant, thermally stable and mechanically extremely robust, UV-resistant, crystal clear, antifog inner with antibacterial characteristics.  
15-year long-life warranty



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

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

Gas-tight protective gloves: WIPAN C-CK-CK+ made of HPE elastomers, partially (CK+) with chemically resistant, gas- and liquid-tight barrier film

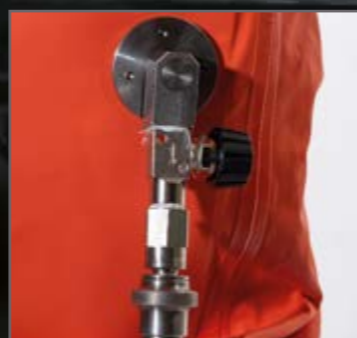


Ultra seam (SYKAN/SILVERFLASH)  
Patented safety seam made of para-aramid with a chemicals resistant tape cover including barrier film, facing outwards

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



Power forced ventilation system F-AU 3 with integrated noise reduction (internal) and Safety coupling



## VSF 5 series: gas-tight totally encapsulated chemical protective suit – type 1a (ET) – internal SCBA

### The standard equipment varies depending on the model:

- One-piece (gas-tight) totally encapsulated chemical protective suit with a firmly integrated triple Interchangeable VSF 5 visor (with mechanical protective visor, chemical barrier and permanent antifog coating on the inside), a gas-tight zip (130 cm, optionally 180 cm), with partial fabric cover, integrated protective gloves and boots, integrated braces and pressure relief valves, with double protective fabric cover (incl. high-quality HPE membrane).
- CPS (chemical protective suit) for unlimited use in firefighting, industry, works fire brigades and military.
- Classification by standard: Type 1a (ET) = gas-tight chemical protective suit with breathing air supply worn inside the chemical protective suit, for example compressed air equipment.
- These CPS unite excellent workmanship with high-grade materials.
- 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).
- Service life: 15 years: 10 years, then inspection; +5 years (10 years for limited use CHEMBA)
- Optional: SMART STOCK (5 years maintenance-free, vacuum packaged with seal)
- Sizes: Five individual sizes (M to XXL)
- Optimum fit through range of sizes
- Perfect design also at critical points

### Protective suits – special features

- Reusable chemical protective suits according to protection level EN 943-1-2: 1a-b (ET)/1c and 2 ET (type 1a-b-c) and EN 14126 (type 3).
- HARMLESS MATERIALS:
  - PH-neutral behaviour, confirmed by AZO test (material colours).
  - PFOA-free and skin-friendly materials
  - Visions 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.
- 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).
- 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).
- 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.
- Outstanding flame retardance according to EN 13274-4 (approx. 850°C), EN 11612 (SILVERFLASH) and flash-over test according to ISO 13506 (SYKAN and SILVERFLASH)
- Outstanding cold protection according to EN 943 and cryogenic tests (-80 °C down to -178 °C)
- 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.
- Approved for use in hazardous areas – reliable protection against arcing.
- Available in different versions: Totally encapsulated suit type 1a ET (SCBA inside), 1b ET (SCBA outside) for work in confined spaces as well as 1c (without SCBA, with compressed air forced ventilation) and Type 3 liquid-tight protective suits as coveralls or powered filter unit protective suits.
- Extensive range of accessories: sensors, light, forced ventilation, functional underwear, optional extras.
- Comprehensive service: professional decon system. Total Care. Safe and sustainable. Worldwide.
- These protective suits unite excellent quality with high-grade materials and components.
- Optimum fit through range of sizes.
- Perfect design also at critical points.





## Suit description, VSF 5 SYKAN 2

- One-piece gas-tight chemical protective suit (industrial protective suit) for use with external (optional) compressed-air source in breathing air quality, with (optional) compressed-air hose for connection with a forced ventilation system (F-AU 3), with built-in sterile filter and air distribution system for internal ventilation and for breathing air without use of a mask, directly from the suit. With permanently integrated VSF 5 visor, extremely durable, flame retardant, flexible and with permanent antifog coating, 3 x covered pressure relief valves (spring-loaded, adjustable), gas-tight (covered) zip and permanently integrated protective gloves and boots (optionally footlets and drip cuffs).
- CPS (chemical protective suit) for unrestricted use by fire brigades/industry/works fire brigades/military: ET (Emergency Teams); classification according to EN 943-1/-2 standard: type 1c

### 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.

### EQUIPMENT

- VISOR: Extremely chemically resistant, flexible interchangeable visor (VSF 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 HPE-ULTRA zip (130 cm), including barrier film, chemicals and thermally resistant, sewn with protective suit and permanently welded (not glued) with ULTRA seam cover. Closes from bottom to top for safety. Zip on the right side. -> Integrated: fabric labyrinth cover

### PROTECTIVE GLOVES

- Standard interchangeable protective gloves: WIPAN C – standard size, 10 HPE elastomer CBRN protective glove with integrated cotton lining; colour: black
- > For other sizes please enquire.
- > Alternative protective gloves (CBRN): WIPAN B+ (0.3, 0.5, 1.5), WIPAN C or CK (with para-aramid), WIPAN CK-PRO (with para-aramid) or WIPAN CK+ (with integrated para-aramid and protective barrier film)
- Standard WT protective gloves: Steel glove change system
- > Alternative: Quick-lock glove system

### PROTECTIVE BOOTS

- Standard interchangeable protective boot: HPE 1 SA-BF; standard size: 46; HPE elastomer protective boot with FPA approval according to EN 15090, EN ISO 20345 S5 HRO SRC, EN 13832-3, EN 13287; colour: black
- > Other sizes: 43 to 47 (please specify when ordering)
- > Alternatively: protective boots: HPF ULTRA-CHEM-GREEN HAZGUARD® / HPF 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
- Backpack padding, inside (normative mandatory)

### 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® 1-2-4, POLYRAN-L-S and SILVERFLASH® protective suits:

- EN ISO 13688 = protective clothing – General requirements
- EN 943-1 (POLYRAN) and EN 943-2 (SYKAN and SILVERFLASH): Protective clothing type 1c (without SCBA)
- SOLAS = national BG Verkehr approval for “maritime (on board) uses”

### Advanced material testing:

- 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 5 SYKAN 2
- COUNTRY OF ORIGIN: GERMANY
- WEIGHT: approx. 6.5 kg without extras, in size L, with footlets/boots: approx. 1.75 kg

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

### LIFE CYCLE

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

### ORDERING DATA

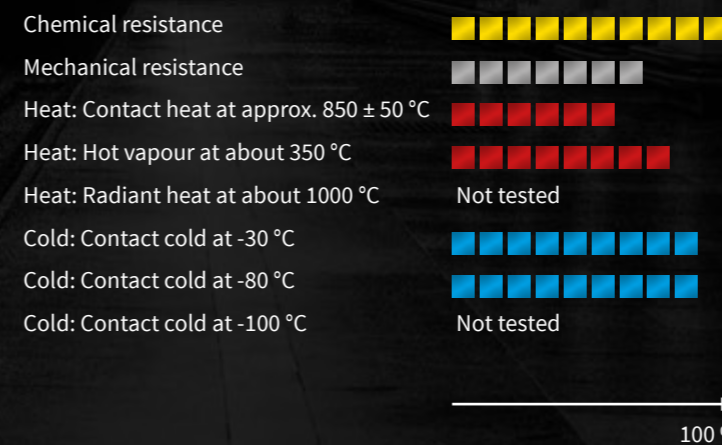
- > Note: see size charts (standard gloves: size 10 (see size chart) or standard protective boots: size 46 (43-47))
- Sizes 150 to 165 cm Order no.: 0202-212 S
- Sizes 160 to 175 cm Order no.: 0202-212 M
- Sizes 170 to 185 cm Order no.: 0202-212 L
- Sizes 180 to 190 cm Order no.: 0202-212 XL (standard)
- Sizes 190 to 200 cm Order no.: 0202-212 XXL

### ALL PRODUCTS INCLUDE

- Participation in TESIMAX SERVICEPOOL for reusable protective suits, available worldwide
- Participation in TESIMAX real-time training (RTT) for reusable protective suits, available in Germany
- Standard nylon storage bag, black
- Technical documentation: QR user manual and online TESIMAX Data Service (environmentally friendly)
- > Optional: different textile storage bag (hanging or lying storage)
- > Optional: plastic CPS transport boxes

### OPTIONAL FUNCTIONS AND ACCESSORIES -> see Accessories.

### Property rating, VSF 5 SYKAN 2:



The VSF 5 SYKAN 2 is also available without sterile filter and with standard Steel replacement system; please enquire.





## Suit description, VSF 5 POLYRAN-L-S

- One-piece gas-tight chemical protective suit (industrial protective suit) for use with external (optional) compressed-air source in breathing air quality, with (optional) compressed-air hose for connection with a forced ventilation system (F-AU 3), with built-in sterile filter and air distribution system for internal ventilation and for breathing air without use of a mask, directly from the suit. With permanently integrated VSF 5 visor, extremely durable, flame retardant, flexible and with permanent antifog coating, 3 x covered pressure relief valves (spring-loaded, adjustable), gas-tight (covered) zip and permanently integrated protective gloves and boots (optionally footlets and drip cuffs).
- CPS (chemical protective suit) for unrestricted use by fire brigades/industry/works fire brigades/military, classification according to EN 943-1/-2 standard: type 1c

### POLYRAN®-L or 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
- Applications: Maritime industry pharmaceuticals, clinics and decontamination measures/applications
- 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
- Seam technology: High-quality stitched and thermo-fused seam covers

### TOP SEAM

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

### 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 (CBRN): WIPAN B+ (0.3, 0.5, 1.5), WIPAN C or CK (with para-aramid), WIPAN CK-PRO

- (with para-aramid) or WIPAN CK+ (with integrated para-aramid and protective barrier film)
- Standard WT protective gloves: Steel glove change system
- > Alternative: Quick-lock glove system

### PROTECTIVE BOOTS

- Standard interchangeable protective boot: HPF CHEM POLYRAN ACI-FORT® – 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
- Backpack padding, inside (normative mandatory)

### 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® 1-2-4, POLYRAN-L-S and SILVERFLASH® protective suits:

- EN ISO 13688 = protective clothing – General requirements
- EN 943-1 (POLYRAN) and EN 943-2 (SYKAN and SILVERFLASH): Protective clothing type 1c (without SCBA)
- SOLAS = national BG Verkehr approval for “maritime (on board) uses”
- Advanced material testing:**
- 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 5 POLYRAN®-L-S
- COUNTRY OF ORIGIN: GERMANY
- WEIGHT: approx. 6.5 kg without extras, in size L, with footlets/boots: approx. 1.75 kg

COLOUR: ■ Signal yellow (outer), ■ signal red (outer)

## LIFE CYCLE

- 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.: 0202-151 S
Sizes 160 to 175 cm	Order no.: 0202-151 M
Sizes 170 to 185 cm	Order no.: 0202-151 L
Sizes 180 to 190 cm	Order no.: 0202-151 XL (standard)
Sizes 190 to 200 cm	Order no.: 0202-151 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.  
Order no.: Please enquire.

## ALL PRODUCTS INCLUDE

- Participation in TESIMAX SERVICEPOOL for reusable protective suits, available worldwide
- Participation in TESIMAX real-time training (RTT) for reusable protective suits, available in Germany
- Standard nylon storage bag, black
- Technical documentation: QR user manual and online TESIMAX Data Service (environmentally friendly)
- > Optional: different textile storage bag (hanging or lying storage)
- > Optional: plastic CPS transport boxes

## OPTIONAL FUNCTIONS AND ACCESSORIES -> see Accessories.

### Property rating, VSF 5 POLYRAN-L-S

Chemical resistance	<span style="color: yellow;">■</span> <span style="color: yellow;">■</span> <span style="color: yellow;">■</span> <span style="color: yellow;">■</span> <span style="color: yellow;">■</span>
Mechanical resistance	<span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span>
Heat: Contact heat at approx. 850 ± 50 °C	<span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span>
Heat: Hot vapour at about 350 °C	<span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span>
Heat: Radiant heat at about 1000 °C	Not tested
Cold: Contact cold at -30 °C	<span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span>
Cold: Contact cold at -80 °C	Not tested
Cold: Contact cold at -100 °C	Not tested

100 %

The VSF 5 SYKAN 2 is also available without sterile filter and with standard Steel replacement system; please enquire.





## Suit description, VSF 20 POLYRAN-L-S

- One-piece gas-tight chemical protective suit (industrial protective suit) for use with external (optional) compressed-air source in breathing air quality, with (optional) compressed-air hose for connection with a forced ventilation system (F-AU 3), with built-in air distribution system for internal ventilation and for breathing air without use of a mask, directly from the suit. With permanently integrated VSF 20 visor, extremely durable, flame retardant, flexible and with permanent antifog coating, 3 x covered pressure relief valves (spring-loaded, adjustable), gas-tight (covered) zip and permanently integrated protective gloves and boots (optionally footlets and drip cuffs).
- CPS (chemical protective suit) for unrestricted use by fire brigades/industry/works fire brigades/military, classification according to EN 943-1/-2 standard: type 1c

### POLYRAN®-L or 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
- Applications: Maritime industry pharmaceuticals, clinics and decontamination measures/applications
- 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
- Seam technology: High-quality stitched and thermo-fused seam covers

### TOP SEAM

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

### EQUIPMENT

- VISOR: Extremely chemically resistant, flexible interchangeable visor (VSF 20), 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 (180 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 (CBRN): WIPAN B+ (0.3, 0.5, 1.5), WIPAN C or CK (with para-aramid), WIPAN CK-PRO (with para-aramid) or WIPAN CK+ (with integrated para-aramid and protective barrier film)
- 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
- Backpack padding, inside (normative mandatory)

### 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® 1-2-4, POLYRAN-L-S and SILVERFLASH® protective suits:

- EN ISO 13688 = protective clothing – General requirements
- EN 943-1 (POLYRAN) and EN 943-2 (SYKAN and SILVERFLASH): Protective clothing type 1c (without SCBA)
- SOLAS = national BG Verkehr approval for “maritime (on board) uses”

### Advanced material testing:

- 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 20 POLYRAN®-L-S
- COUNTRY OF ORIGIN: GERMANY
- WEIGHT: approx. 6.5 kg without extras, in size L, with footlets/boots: approx. 1.75 kg

- COLOUR (outer): ■ signal yellow, ■ signal-red or ■ Nato olive

### LIFE CYCLE

- 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.: 0221-151 S             |
| Sizes 160 to 175 cm | Order no.: 0221-151 M             |
| Sizes 170 to 185 cm | Order no.: 0221-151 L             |
| Sizes 180 to 190 cm | Order no.: 0221-151 XL (standard) |
| Sizes 190 to 200 cm | Order no.: 0221-151 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.  
Order no.: Please enquire.

### ALL PRODUCTS INCLUDE

- Participation in TESIMAX SERVICEPOOL for reusable protective suits, available worldwide
- Participation in TESIMAX real-time training (RTT) for reusable protective suits, available in Germany
- Standard nylon storage bag, black
- Technical documentation: QR user manual and online TESIMAX Data Service (environmentally friendly)
- > Optional: different textile storage bag (hanging or lying storage)
- > Optional: plastic CPS transport boxes

### OPTIONAL FUNCTIONS AND ACCESSORIES -> see Accessories.

### Property rating, VSF 20 POLYRAN-L-S

Chemical resistance	<span style="color: yellow;">■</span> <span style="color: yellow;">■</span> <span style="color: yellow;">■</span> <span style="color: yellow;">■</span> <span style="color: yellow;">■</span>
Mechanical resistance	<span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span> <span style="color: gray;">■</span>
Heat: Contact heat at approx. 850 ± 50 °C	<span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span>
Heat: Hot vapour at about 350 °C	<span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span>
Heat: Radiant heat at about 1000 °C	Not tested
Cold: Contact cold at -30 °C	<span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span> <span style="color: blue;">■</span>
Cold: Contact cold at -80 °C	Not tested
Cold: Contact cold at -100 °C	Not tested

100 %



Illustration with labyrinth cover



## Suit description, VSF 20 SYKAN 1

- One-piece gas-tight chemical protective suit (industrial protective suit) for use with external (optional) compressed-air source in breathing air quality, with (optional) compressed-air hose for connection with a forced ventilation system (F-AU 3), with built-in air distribution system for internal ventilation and for breathing air without use of a mask, directly from the suit. With permanently integrated VSF 20 visor, extremely durable, flame retardant, flexible and with permanent antifog coating, 3 x covered pressure relief valves (spring-loaded, adjustable), gas-tight (covered) zip and permanently integrated protective gloves and boots (optionally footlets and drip cuffs).
- CPS (chemical protective suit) for unrestricted use by fire brigades/industry/works fire brigades/military: ET (Emergency Teams); classification according to EN 943-1/-2 standard: type 1c

### SYKAN® 1 FABRIC

- The gas- and liquid-tight, chemical resistant fabric structure consists of five 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 and one under the fabric.

### 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.

### EQUIPMENT

- VISOR: Extremely chemically resistant, flexible interchangeable visor (VSF 20), 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 HPE-ULTRA zip (180 cm), including barrier film, chemicals and thermally resistant, sewn with protective suit and permanently welded (not glued) with ULTRA seam cover. Closes from bottom to top for safety. Zip on the right side.
- > Optional fabric labyrinth cover

### PROTECTIVE GLOVES

- Standard interchangeable protective gloves: WIPAN C – standard size, 10 HPE elastomer CBRN protective glove with integrated cotton lining; colour: black
- > For other sizes please enquire.
- > Alternative protective gloves (CBRN): WIPAN B+ (0.3, 0.5, 1.5), WIPAN C or CK (with para-aramid), WIPAN CK-PRO (with para-aramid) or WIPAN CK+ (with integrated para-aramid and protective barrier film)
- Standard WT protective gloves: Steel glove change system
- > Alternative: Quick-lock glove system

### PROTECTIVE BOOTS

- Standard interchangeable protective boot: HPE 1 SA-BF; standard size: 46; HPE elastomer protective boot with FPA approval according to EN 15090, EN ISO 20345 S5 HRO SRC, EN 13832-3, EN 13287; 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
- Backpack padding, inside (normative mandatory)

### 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® 1-2-4, POLYRAN-L-S and SILVERFLASH® protective suits:

- EN ISO 13688 = protective clothing – General requirements
- EN 943-1 (POLYRAN) and EN 943-2 (SYKAN and SILVERFLASH): Protective clothing type 1c (without SCBA)
- SOLAS = national BG Verkehr approval for “maritime (on board) uses”
- Advanced material testing:
- 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 20 SYKAN 1
- COUNTRY OF ORIGIN: GERMANY
- WEIGHT: approx. 6.5 kg without extras, in size L, with footlets/boots: approx. 1.75 kg

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

### LIFE CYCLE

- 15 years: 10 years, then inspection for an additional 5 years
- > Optional: SMART STOCK (5 years maintenance-free, vacuum packaged 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.: 0221-250 S
Sizes 160 to 175 cm	Order no.: 0221-250 M
Sizes 170 to 185 cm	Order no.: 0221-250 L
Sizes 180 to 190 cm	Order no.: 0221-250 XL (standard)
Sizes 190 to 200 cm	Order no.: 0221-250 XXL

### 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
- Standard nylon storage bag, black
- Technical documentation: QR user manual and online TESIMAX Data Service (environmentally friendly)
- > Optional: different textile storage bag (hanging or prone storage)
- > Optional: plastic CPS transport boxes

### OPTIONAL FUNCTIONS AND ACCESSORIES -> see Accessories.

### Property rating, VSF 20 SYKAN 1:

Chemical resistance		100 %
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





## Suit description, VSF 20 SYKAN 2

- One-piece gas-tight chemical protective suit (industrial protective suit) for use with external (optional) compressed-air source in breathing air quality, with (optional) compressed-air hose for connection with a forced ventilation system (F-AU 3), with built-in air distribution system for internal ventilation and for breathing air without use of a mask, directly from the suit. With permanently integrated VSF 20 visor, extremely durable, flame retardant, flexible and with permanent antifog coating, 3 x covered pressure relief valves (spring-loaded, adjustable), gas-tight (covered) zip and permanently integrated protective gloves and boots (optionally footlets and drip cuffs).
- CPS (chemical protective suit) for unrestricted use by fire brigades/industry/works fire brigades/military: ET (Emergency Teams); classification according to EN 943-1/-2 standard: type 1c

### 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.

### EQUIPMENT

- VISOR: Extremely chemically resistant, flexible interchangeable visor (VSF 20), 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 HPE-ULTRA zip (180 cm), including barrier film, chemicals and thermally resistant, sewn with protective suit and permanently welded (not glued) with ULTRA seam cover. Closes from bottom to top for safety. Zip on the right side. -> Integrated: fabric labyrinth cover

### PROTECTIVE GLOVES

- Standard interchangeable protective gloves: WIPAN C – standard size, 10 HPE elastomer CBRN protective glove with integrated cotton lining; colour: black
- > For other sizes please enquire.
- > Alternative protective gloves (CBRN): WIPAN B+ (0.3, 0.5, 1.5), WIPAN C or CK (with para-aramid), WIPAN CK-PRO (with para-aramid) or WIPAN CK+ (with integrated para-aramid and protective barrier film)
- Standard WT protective gloves: Steel glove change system
- > Alternative: Quick-lock glove system

### PROTECTIVE BOOTS

- Standard interchangeable protective boot: HPE 1 SA-BF; standard size: 46; HPE elastomer protective boot with FPA approval according to EN 15090, EN ISO 20345 S5 HRO SRC, EN 13832-3, EN 13287; 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
- Backpack padding, inside (normative mandatory)

### 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® 1-2-4, POLYRAN-L-S and SILVERFLASH® protective suits:

- EN ISO 13688 = protective clothing – General requirements
- EN 943-1 (POLYRAN) and EN 943-2 (SYKAN and SILVERFLASH): Protective clothing type 1c (without SCBA)
- SOLAS = national BG Verkehr approval for “maritime (on board) uses”

### Advanced material testing:

- 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.

### PRODUCT REFERENCE

- VSF 20 SYKAN® 2
- COUNTRY OF ORIGIN: GERMANY
- WEIGHT: approx. 6.5 kg without extras, in size L, with footlets/boots: approx. 1.75 kg

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

### LIFE CYCLE

- 15 years: 10 years, then inspection for an additional 5 years
- > Optional: SMART STOCK (5 years maintenance-free, vacuum packaged 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.: 0221-212 S
- Sizes 160 to 175 cm      Order no.: 0221-212 M
- Sizes 170 to 185 cm      Order no.: 0221-212 L
- Sizes 180 to 190 cm      Order no.: 0221-212 XL(standard)
- Sizes 190 to 200 cm      Order no.: 0221-212 XXL

### ALL PRODUCTS INCLUDE

- Participation in TESIMAX SERVICEPOOL for reusable protective suits, available worldwide
- Participation in TESIMAX real-time training (RTT) for reusable protective suits, available in Germany
- Standard nylon storage bag, black
- Technical documentation: QR user manual and online TESIMAX Data Service (environmentally friendly)
- > Optional: different textile storage bag (hanging or lying storage)
- > Optional: plastic CPS transport boxes

### OPTIONAL FUNCTIONS AND ACCESSORIES -> see Accessories.

### Property rating, VSF 20 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, VSF 20 SYKAN 4

- One-piece gas-tight chemical protective suit (industrial protective suit) for use with external (optional) compressed-air source in breathing air quality, with (optional) compressed-air hose for connection with a forced ventilation system (F-AU 3), with built-in air distribution system for internal ventilation and for breathing air without use of a mask, directly from the suit. With permanently integrated VSF 20 visor, extremely durable, flame retardant, flexible and with permanent antifog coating, 3 x covered pressure relief valves (spring-loaded, adjustable), gas-tight (covered) zip and permanently integrated protective gloves and boots (optionally footlets and drip cuffs).
- CPS (chemical protective suit) for unrestricted use by fire brigades/industry/works fire brigades/military: ET (Emergency Teams); classification according to EN 943-1/-2 standard: type 1c

### SYKAN® 4 FABRIC

- The gas- and liquid-tight, chemical resistant fabric structure consists of four layers. The fabric has a robust high-performance base fabric (HP para-aramid) 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.

### 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.

### EQUIPMENT

- VISOR: Extremely chemically resistant, flexible interchangeable visor (VSF 20), 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 HPE-ULTRA zip (180 cm), including barrier film, chemicals and thermally resistant, sewn with protective suit and permanently welded (not glued) with ULTRA seam cover. Closes from bottom to top for safety. Zip on the right side.
- > Integrated: fabric labyrinth cover

### PROTECTIVE GLOVES

- Standard interchangeable protective gloves: WIPAN CK – standard size 10 HPF elastomer CBRN protective glove with integrated cotton lining; colour: black
- > For other sizes please enquire.
- > Alternative protective gloves (CBRN): WIPAN B+ (0.3, 0.5, 1.5), WIPAN C or CK (with para-aramid), WIPAN CK-PRO (with para-aramid) or WIPAN CK+ (with integrated para-aramid and protective barrier film)
- Standard WT protective gloves: Steel glove change system
- > Alternative: Quick-lock glove system

### PROTECTIVE BOOTS

- Standard interchangeable protective boot: HPE 1 SA-BF; standard size: 46; HPE elastomer protective boot with FPA approval according to EN 15090, EN ISO 20345 S5 HRO SRC, EN 13832-3, EN 13287; 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
- Backpack padding, inside (normative mandatory)

### 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® 1-2-4, POLYRAN-L-S and SILVERFLASH® protective suits:

- EN ISO 13688 = protective clothing – General requirements
- EN 943-1 (POLYRAN) and EN 943-2 (SYKAN and SILVERFLASH): Protective clothing type 1c (without SCBA)
- SOLAS = national BG Verkehr approval for “maritime (on board) uses”
- Advanced material testing:**
- 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.

### PRODUCT REFERENCE

- VSF 20 SYKAN® 4
- COUNTRY OF ORIGIN: GERMANY
- WEIGHT: approx. 6.5 kg without extras, in size L, with footlets/boots: approx. 1.75 kg

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

### LIFE CYCLE

- 15 years: 10 years, then inspection for an additional 5 years
- > Optional: SMART STOCK (5 years maintenance-free, vacuum packaged 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.: 0221-214 S
Sizes 160 to 175 cm	Order no.: 0221-214 M
Sizes 170 to 185 cm	Order no.: 0221-214 L
Sizes 180 to 190 cm	Order no.: 0221-214 XL (standard)
Sizes 190 to 200 cm	Order no.: 0221-214 XXL

### ALL PRODUCTS INCLUDE

- Participation in TESIMAX SERVICEPOOL for reusable protective suits, available worldwide
- Participation in TESIMAX real-time training (RTT) for reusable protective suits, available in Germany
- Standard nylon storage bag, black
- Technical documentation: QR user manual and online TESIMAX Data Service (environmentally friendly)
- > Optional: different textile storage bag (hanging or lying storage)
- > Optional: plastic CPS transport boxes

**OPTIONAL FUNCTIONS AND ACCESSORIES** -> see Accessories.

### Property rating, VSF 20 SYKAN 4:

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	

100 %

