VenION®

New standards in safety and comfort for full-body protective suits with breathing air blowers!

The VenION® is a full-protection suit with an innovative, ambient air-dependent breathing apparatus that offers protection against chemicals and, depending on the filter combination, against particles, gases, vapors, or combinations of these hazardous substances. The ambient air is filtered and supplies the suit and its user with treated air. Positive pressure is ensured, preventing the ingress of contaminants.

With an air flow rate of up to 450 l/min, the breathing air blower sets new standards in terms of safety and comfort and enables uninterrupted operation for up to four hours. The hygienic design prevents contamination of the device under the disposable protective suit. The positive effects of the high air flow rate are enhanced by the air ducts, which distribute the air at various points.

This solution is ideal for the chemical and pharmaceutical industries, as well as for all areas that come into contact with highly active substances. It is also suitable for laboratories, emergency services such as disaster control, and Ex zones 1 and 2, as well as 21 and 22.

Key features Full protection suit:

- Material selection: Dupont™ Tychem® 2000 C & 6000 F
- Highly transparent visor made of Melinex: Enables a clear, unrestricted view upwards
- Minimum shelf life: 5 years
- Operating temperature: -5 to +40°C
- Entry: from the front via a liquid-tight, horizontal zipper
- Leg cuffs: boot socks with drip edge or booties with non-slip antistatic soles
- Arm cuffs: various types of tightly fitted gloves depending on requirements
- Sizes: S-XXXL
- Total leakage: Class 4 with SF6 method according to EN 12941 and EN1073-1 – protection factor >20,000
- Approvals:
  PPE category CE Cat. III according to PPE Regulation (EU) 2016/425; EN 1149-5:2018; EN 12941:1998+A1:2003+A2:2008 TH3; EN 14605 :2005+A1 :2009 Type 3; EN 14126 :2003/AC :2004 Type 3-B; EN 1073-1:2016+A1:2018

for safer solutions

Version 1.0, 09. Dec. 2025 – Link for more information.

TB-Safety AG
CH-5070 Frick
+41 (062) 865 80 20
info@tbsafety.ch
www.tbsafety.ch

VenION®

SAFETY TB
www.tbsafety.ch

Main features of the blower system:

- Weight: 703 g without carrying device
- Dimensions: LxWxH (mm) 170x115x210
- Carrying device: Washable hip belt with shoulder strap
- Warning device: Acoustic and optical warning for low battery capacity and filter saturation in the hood in the field of vision
- Volume flow: up to 450 l/min
- Noise level: < 60 dB
- Filter connection: RD 50 internal thread for filters with a volume flow of 150 l/min. Adapter for connecting RD40 filters available
- CE certification EN 12941 TH3 with the VenION® full protection suit
- Contamination-free: The device is protected by its design, the hygienic dressing and undressing process, and the suit, and remains contamination-free
- USB-C port for remote maintenance: The device does not leave the zone

Key features Power supply (2 options):

Primary cell battery with charge status indicator (yellow), equipped with 15 non-rechargeable AA Energizer Ultimate Lithium cells

- Nominal operating time > 4 hours
- Nominal voltage 22.5 V
- Weight 404 g
- Ideal for use in disaster areas without power supply and on vehicles

Rechargeable battery with charge level indicator (green)

- Nominal operating time > 4 hours
- Capacity 3300mAh
- Energy 71.28 Wh
- Weight 408 g

for safer solutions

Version 1.0, 09. Dec. 2025 – Link for more information.

TB-Safety AG
CH-5070 Frick
+41 (062) 865 80 20
info@tbsafety.ch
www.tbsafety.ch

Material properties Tychem® 6000 F

Norm	Clothing item	Result
EN 530 Method 2 – Abrasion resistance	Material	>2000 cycles class 6/6
EN ISO 7854 Method B – Flex Cracking Resistance	Material	>1000 cycles class 1/6
EN ISO 9073-4 – Trapezoidal Tear Resistance	Material	> 20 N class 2/6
DIN EN ISO 13934-1 – Tensile strength	Material	>100 N class 3/6
EN 863 – Puncture resistance	Material	>10 N class 2/6
EN ISO 13935-2 – Seam strength	Material	>300 N class 5/6
EN 14325:2018, 5.5 Seam strength	Glove material	>150 N
Resistance to Penetration by Blood and Body Fluids using Synthetic Blood ISO 16603	Material	20kPa class 6/6
Resistance to Penetration by Contaminated Liquids EN ISO 22610	Material	>75 Minuten class 6/6
Resistance to Penetration by Biologically Contaminated Aerosols ISO/DIS 22611	Material	log ratio >5 class 3/3
Resistance to Penetration by Contaminated Solid Particles ISO 22612	Material	log cfu <1 class 3/3

Material properties Tychem® 2000 C

Norm	Clothing item	Result
EN 530 Method 2 – Abrasion resistance	Material	>1500 cycles class 5/6
EN ISO 7854 Method B – Flex Cracking Resistance	Material	>5000 cycles class 3/6
EN ISO 9073-4 – Trapezoidal Tear Resistance	Material	> 10 N class 1/6
DIN EN ISO 13934-1 – Tensile strength	Material	>100 N class 3/6
EN 863 – Puncture resistance	Material	>10 N class 2/6
EN ISO 13935-2 – Seam strength	Material	>125 N class 4/6
EN 14325:2018, 5.5 Seam strength	Glove material	>150 N
Resistance to Penetration by Blood and Body Fluids using Synthetic Blood ISO 16603	Material	20kPa class 6/6
Resistance to Penetration by Contaminated Liquids EN ISO 22610	Material	>75 Minuten class 6/6
Resistance to Penetration by Biologically Contaminated Aerosols ISO/DIS 22611	Material	log ratio >5 class 3/3
Resistance to Penetration by Contaminated Solid Particles ISO 22612	Material	log cfu <1 class 3/3

Version 1.0, 09. Dec. 2025 – Link for more information.

TB-Safety AG
CH-5070 Frick
+41 (062) 865 80 20
info@tbsafety.ch
www.tbsafety.ch

Permeation data Tychem® 6000 F

Chemical name	CAS	Physical state	BT 1.0 EU	BT ACT#
Acetone	67-64-1	liquid	>480 min	>480 min
Acetonitrile	75-05-8	liquid	>480 min	65*/83 min
Acroleic acid	79-10-7	liquid	>480 min	>480 min
Ammonia (g)	7664-41-7	vapor	21 min	20 min
Chlorine (g)	7782-50-5	vapor	>480 min	>480 min
Hydrogen chloride (g)	7647-01-0	vapor	>480 min	>480 min
Diethyl amine	109-89-7	liquid	>480 min	>480 min
Dimethyl formamide, N,N-	68-12-2	liquid	>480 min	>480 min
Ethyl acetate	141-78-6	liquid	>480 min	>480 min
Isopropanol	67-63-0	liquid	>480 min	>480 min
Carbon disulfide	75-15-0	liquid	>480 min	>480 min
Methanol	67-56-1	liquid	>480 min	56 min
Methyl ethyl ketoxime	96-29-7	liquid	>480 min	>480 min
Sodium hydroxide (50% at 50 °C)	1310-73-2	liquid	>480 min	>480 min
Hexane, n-	110-54-3	liquid	>480 min	>480 min
Oleum (20% free SO3)	8014-95-7	liquid	>480 min	>480 min
Hydrochloric acid (37%)	7647-01-0	liquid	>480 min	>480 min
Sulfur dioxide (g)	7446-09-5	vapor	>480 min	28*/46 min
Sulfuric acid (>95%)	7664-93-9	liquid	>480 min	>480 min
Tetrahydrofuran	109-99-9	liquid	>480 min	>480 min
Toluene	108-88-3	liquid	>480 min	>480 min
Xylene, mixed isomers	1330-20-7	liquid	>480 min	>480 min

BT0.1 Normalized breakthrough time at 0.1 µg/cm²/min [mins]

#: BT ACT (Actual) Breakthrough time at MDPR [mins]

* Based on the lowest single value

for safer solutions

Version 1.0, 09. Dec. 2025 – Link for more information.

TB-Safety AG
CH-5070 Frick
+41 (062) 865 80 20
info@tbsafety.ch
www.tbsafety.ch

VenION®

SAFETY TB
www.tbsafety.ch

chemical warfare agents	CAS	Physical state	MIL-STD-282 (100g/m²)	Finabel 0.7.C
Mustard gas (HD)	505-60-2	liquid	>480 min	>1400 min
Lewisite	541-25-3	liquid	>360 min	>155 min
Soman	96-64-0	liquid	>480 min	>1400 min
Vx	50782-69-9	liquid	>480 min	>1400 min
Sarin (GB)	107-44-8	liquid	>480 min	>1400 min
Tabun	77-81-6	liquid	>480 min	>1400 min

Your advantages:

- Safe even under harsh conditions (temperature, relative humidity, physical activity)
- Hygienic design
- Versatile: Tychem® 2000 C or 6000 F; P3 and/or ABEK2P-R-SL filter; re-chargeable battery and/or primary cell
- Customized requirements possible
- Comfortable: Thanks to the design and the volume flow of up to 450 l/min
- Increased productivity through significantly increased comfort
- Time and cost-saving:
  - No reprocessing necessary after use
  - Remote maintenance saves transport and administrative costs

Your partner for safety and comfort:

Scan the QR code for more information!

SAFETY TB
www.tbsafety.ch

DISTRIBUIDOR AUTORIZADO:

netSteril
info@netsteril.com

for safer solutions

Version 1.0, 09. Dec. 2025 – Link for more information.

TB-Safety AG
CH-5070 Frick
+41 (062) 865 80 20
info@tbsafety.ch
www.tbsafety.ch