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# User Information Sheet

# alphashield 2000+

UK

**DESIGNED TO FIT**

## Areas Of Use

- These coveralls are designed for protection against hazardous substances and contamination of both product and personnel.
- They are typically used, dependent upon the severity of the toxicity and conditions, for protection against airborne particles and limited non-toxic splash and spray.
- Where there is a need for resistance to penetration by airborne solid particles, (inc. radioactive materials and infective agents), the performance applicable to the garment is covered by the standards listed. In addition it is intended for use in cases of potential exposure to light spray liquid aerosols, or low pressure volume splashes, where a complete permeation barrier is not required.
- Recommended for single use applications only.
- Garment labels indicate product type, style code, manufacture date and standard approvals. Bag labels indicate product type, style code and manufacture date.

## Limitations

- Exposure to certain chemicals or high concentrations, may require higher barrier properties of the fabric, or in the construction of the suit. Such conditions can be protected by garments to the standards of Types 1 to 4, or possibly by a more protective material.
- Footwear appropriate to the intended use must be worn.

## Compliance And Responsibility

- Garments are limited life chemical protective clothing conforming to the requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council as Personal Protective Equipment.
- Manufactured under ISO 9001 quality control procedures.
- The user shall be the sole judge of the suitability for the type of protection required, and the correct combinations of coveralls accessories and ancillary equipment.
- The manufacturer cannot be held responsible for any accident caused by misuse, or unsuitability of the garment for the task in progress.
- Ensure all seams and enclosures are intact. Worn, damaged or contaminated garments should not be used.
- In order to comply fully with the performance requirements for Types 5/6 garments, all openings such as wrists, ankles, neck, and including the zipper flap, etc., should be securely taped.
- Garments will protect only the parts of the body they cover. Connections with other PPE may require appropriate sealing.
- Fabric used in the construction of these garments has low air permeability and can cause heat stress and frequent rest is therefore advised. To obtain full protection, all apertures should be securely closed, but the user shall determine, and allow for, the effect of heat when in use. Heat stress and discomfort can be reduced by the use of appropriate undergarments or ventilation equipment.

## Storage And Disposal

- These garments can be stored in accordance with normal storage practice, and disposed of without harm to the environment.
- Restrictions on the disposal depend solely on the contamination during use. Contaminated clothing may be harmful and should be disposed of as hazardous waste in accordance with national regulations. If in doubt please contact your supplier.
- The manufacturer cannot accept responsibility for any improper use or disposal of garments produced by them.

## Garment Removal

- Care should be taken with the removal of any garment which may have been contaminated. The use of an assistant wearing gloves should be used to peel back the garment from the wearer, taking care that no contaminant comes into contact with either the assistant or the wearer.

## Explanation Of Label Symbols


Protection Against Chemicals.
EN 13034:2005+A1:2009 / EN ISO 13982-1:2004+A1:2010.


Chemical Protective Clothing - Limited Protective Performance Against Liquid Chemicals.
Type 6: EN 13034:2005+A1:2009. Light Spray.


Chemical Protective Clothing - Protection Against Solid Particulates.
Type 5: EN ISO 13982-1:2004+A1:2010.
$L_{jmn,\ 82/90} \leq 30\%$ ; $L_{s,\ 8/10} \leq 15\%$


Protective Clothing Against Radioactive Contamination. [Non-Ventilated].
EN 1073-2:2002. [*Excluding, Clause 4.2 Puncture Resistance & Resistance To Blocking (Not Tested)*].
TIL: Class 1


Protective Clothing Against Infective Agents.
EN 14126:2003.
Type 5-B ; 6-B

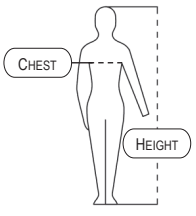

Electrostatic Properties
EN 1149-5:2008. Electrostatic Dissipative Clothing With A Surface Resistance Of ≤ 2.5 x $10^9$ Ω [Inner Surface].


For Single Use Only. Do Not Re-use.


Flammable Material. Keep Away From Fire.


Refer to user instruction.

## Garment Sizes




**Sizes according to EN 340.**
**Please select appropriate size for wearer's chest and height.**

| Size | Chest [cm] | Height [cm] |
|---|---|---|
| S | 84-92 | 162-170 |
| M | 92-100 | 168-176 |
| L | 100-108 | 174-182 |
| XL | 108-116 | 182-188 |
| XXL | 116-124 | 188-194 |
| XXXL | 124-132 | 194-200 |

## Technical Properties - EN 13034 / EN ISO 13982-1 / EN 1073-2 / EN 14126 / EN 1149-5

### Material Performance Data

| Test | Standard | Result | Class |
|---|---|---|---|
| Abrasion Resistance | EN 530 | > 10 cycles *[Note 1] | Class 1 |
| Flex Cracking Resistance | ISO 7854-B | > 5,000 cycles *[Note 1] | Class 3 |
| Tear Strength [Trapezoidal] | ISO 9073-4 | MD = >40 N<br>CD = >20 N | Class 2 |
| Tensile Strength | ISO 13934-1 | MD = >60 N<br>CD = >30 N | Class 1 |
| Puncture Resistance | EN 863 | >5 N *[Note 2] | Class 1 *[Note 2] |
| Seam Strength | EN ISO 13935-2 | >125 N | Class 4 |
| pH Value | BS 3266 | >3.5 and <9.5 | PASS |
| Resistance To Ignition | EN 13274-4 | PASS | - - - - |

**KEY**: MD = Machine Direction ; CD = Cross Direction
**Note 1**: Visual endpoint.
**Note 2**: The measured puncture resistance was below the minimum 10N required by the EN 1073-2 standard. However it is sufficient to meet Class 1 according to the EN 13034 and EN ISO 13982-1 standards. The end user must decide on the basis of a risk assessment, whether the puncture resistance of the material is acceptable.

### Resistance To Penetration By Chemicals [EN 6530] - Repellency Index [%] / Penetration Index [%] [EN 14325]

| Chemical | Result<br>Repellency / Penetration | Class<br>Repellency / penetration |
|---|---|---|
| Sulphuric Acid [$H_2SO_4$] 30% | >95 % / <1 % | Class 3 / Class 3 |
| Sodium Hydroxide [NaOH] 10% | >95 % / <1 % | Class 3 / Class 3 |

### Whole Suit Tests [EN 13034 / EN ISO 13982-1]

| Test | Standard | Result | Class |
|---|---|---|---|
| Resistance To Penetration By Liquids [Type 6: Light Spray Test] *[Note 3] | EN ISO 17491-4 | PASS | - - - - |
| Inward Leakage Of Aerosols Of Solid Particles. [Type 5] | EN ISO 13982-2 | $L_{jmn,\ 82/90} \leq 30\%$<br>$L_{s,\ 8/10} \leq 15\%$ | PASS |

**Note 3**: Resistance to penetration by liquids in the form of a light spray. The test method of EN ISO 17491-4 was modified as defined by EN 13034 for low-level spray testing conditions.

### Protection Against Particulate Radioactive Contamination [EN 1073-2] [Excluding, Clause 4.2 Puncture Resistance & Resistance To Blocking (Not Tested)]

| Test | Standard | Result | Class |
|---|---|---|---|
| **Nominal Protection Factor** | | | |
| Total Inward Leakage | EN 1073-2 | - - - - | Class 1 |

### Protection Against Micro-Organism Hazards [EN 14126]

| Test | Standard | Result | Class |
|---|---|---|---|
| **Fabric Performance Against Penetration By Infective Agents** | | | |
| Resistance To Penetration By Contaminated Liquids Under Hydrostatic Pressure - Using Synthetic Blood. | ISO 16603 | Pass @ 20 kPa | Class 6 |
| Resistance To Penetration By Contaminated Liquids Under Hydrostatic Pressure - Using Bacteriophage Phi-X174. | ISO 16604 | Pass @ 0 kPa | Class 1 |
| Resistance To Penetration By Infective Agents Due To Mechanical Contact With Substances Containing Contaminated Liquids. | EN ISO 22610 | B/T Time (t): > 75 min | Class 6 |
| Resistance To Penetration By Contaminated Liquid Aerosols. | ISO/DIS 22611 | Pen. Ratio [Log R]: > 5 | Class 3 |
| Resistance To Penetration By Contaminated Solid Particles. | ISO 22612 | Pen. [$Log_{(10)}$ CFU]: ≤ 1 | Class 3 |

### Protective Clothing - Electrostatic Properties [EN 1149-5]

| Test | Standard | Result | Class |
|---|---|---|---|
| Surface Resistance | EN 1149-1 | ≤ 2.5 x $10^9$ Ω | PASS [Inner Surface] |

## Electrostatic Properties - Compliance And Responsibility

- Garments are anti-statically treated and comply to the electrostatic protection required by EN 1149-5, and must be used with compatible accessories and work practices to be effective.
- Electrostatic dissipative protective clothing to EN 1149-5 shall meet at least one of the following requirements.
  - Half Decay Time [$t_{50}$] < 4s or Shielding Factor [S] > 0.2, tested according to EN 1149-3:2004, test method 2 (induction charging), or
  - a Surface Resistance of less than or equal to 2.5 x $10^9$ Ω, on at least one surface, tested according to EN 1149-1.
- The person wearing the electrostatic dissipative protective clothing shall be properly earthed. The resistance between the person and the earth shall be less than $10^8$ Ω, e.g. by wearing adequate footwear.
- Electrostatic dissipative protective clothing shall not be opened or removed whilst in the presence of flammable or explosive atmospheres or while handling flammable or explosive substances.
- Fasten the garment correctly, covering all non-complying materials. Where the garment is to be earthed through the skin, ensure that the cuffs are in contact with the skin at all times.
- Electrostatic dissipative clothing shall not be used in oxygen enriched atmospheres without the prior approval of the responsible safety engineer.
- The electrostatic dissipative performance of the electrostatic dissipative protective clothing can be affected by wear and tear, laundering and possible contamination.
- Electrostatic dissipative protective clothing shall permanently cover all non-complying materials during normal use, [including bending and movements].
- Not intended to protect against mains voltage.

## Care Symbols


Do Not Wash


Do Not Bleach


Do Not Machine Dry


Do Not Iron


Do Not Dry Clean

***Economic Operator [EU]:*** *Globus EMEA Ltd., 51 Dawson Street, Dublin, D02 AN25, Ireland.* ***Product conforms to the requirements of:*** *UK regulation 2016/425 on PPE, brought into UK Law and amended & Regulation (EU) 2016/425 of the European Parliament and of the Council as Personal Protective Equipment (PPE).* ***Type-Examination, (Module B), Certificates issued by: UK*** *- SGS United Kingdom Ltd., Rossmore Business Park, Ellesmere Port, South Wirral, Cheshire, CH65 3EN. [UK Approved Body No.* ***0120****].* ***EU*** *– SGS Fimko Oy, Takomotie 8, FI-00380 HELSINKI, Finland. [EU Notified Body No.* ***0598****].* ***PPE is subject to the conformity assessment procedure, conformity to type based on Quality Assurance of the production process, (Module D), under the surveillance of the Notified Body(-ies): UK*** *- SGS United Kingdom Ltd., Rossmore Business Park, Ellesmere Port, South Wirral, Cheshire, CH65 3EN. [UK Approved Body No.* ***0120****].* ***EU*** *– SGS Fimko Oy, Takomotie 8, FI-00380 HELSINKI, Finland. [EU Notified Body No.* ***0598****]. Declaration of Conformity is available at* ***https://gg-doc.com/alpha-solway***