

#### 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.
- 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 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

- These garments are limited life chemical protective clothing manufactured to meet the requirements of the PPE Directive 89/689/EEC and subsequent amendments.
- 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, 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.

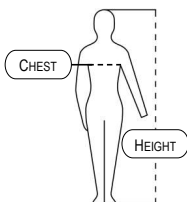
#### GARMENT REMOVAL

- 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. Ljmn, 82/90 ≤ 30% ; Ls, 8/10 ≤ 15%
-  Protective Clothing Against Radioactive Contamination. [Non-Ventilated]. EN 1073-2:2002. [Excluding, Clause 4.2 Puncture Resistance]. 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<sup>9</sup> Ω [Inner Surface].
-  For Single Use Only. Do Not Re-use.
-  Flammable Material. Keep Away From Fire.
-  Refer to user instruction.

#### GARMENT SIZES



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	> 100 cycles *(Note 1)	Class 2
Flex Cracking Resistance	ISO 7854	> 40,000 cycles *(Note 1)	Class 5
Tear Strength [Trapezoidal]	ISO 9073-4	MD = >40 N XD = >10 N	MD = Class 3 XD = Class 1
Bursting Resistance	ISO 13938-1	>160 kPa	Class 3
Tensile Strength	ISO 13934-1	MD = >30 N XD = >100 N	MD = Class 1 XD = Class 3
Puncture Resistance	EN 863	>5 N *(Note 2)	Class 1 *(Note 2)
Seam Strength	ISO 13935-2	>75 N	Class 3
pH Value	ISO 3071	>3.5 and <9.5	PASS

KEY: MD = Machine Direction ; XD = 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 13937-2 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 368] - REPELLENCY INDEX [%] / RESISTANCE INDEX [%] [EN 14325]

CHEMICAL	RESULT REPELLENCY / RESISTANCE	CLASS REPELLENCY / RESISTANCE
Sulphuric Acid [H <sub>2</sub> SO <sub>4</sub> ] 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 & EN 13034 [Mod.]	PASS	----
Inward Leakage Of Aerosols Of Solid Particles. [Type 5]	EN ISO 13982-1	Ljmn, 82/90 ≤ 30% Ls, 8/10 ≤ 15%	PASS

Note 3: Resistance to penetration by liquids in the form of a light spray. The test method of EN ISO 17491-1 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]

TEST	STANDARD	RESULT	CLASS
<b>Nominal Protection Factor</b>			
Total Inward Leakage	EN ISO 13982-1	----	Class 1

##### PROTECTION AGAINST MICRO-ORGANISM HAZARDS [EN 14126]

TEST	STANDARD	RESULT	CLASS
<b>PERFORMANCE AGAINST PENETRATION BY INFECTIVE AGENTS</b>			
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 @ 1.75 kPa	Class 2
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 <sub>10</sub> CFU]: ≤ 1	Class 3

##### PROTECTIVE CLOTHING - ELECTROSTATIC PROPERTIES [EN 1149-5]

TEST	STANDARD	RESULT	CLASS
Surface Resistance	EN 1149-1	≤ 2.5 x 10 <sup>9</sup> 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<sub>50</sub>] < 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<sup>9</sup> 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<sup>8</sup> 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