

# Instructions for Use



**Optimum**

Microporous Type 5 & 6 Coveralls

www.cleanroomsuppliesltd.com

Optimum is a Cleanroom Supplies Ltd brand covering Limited Life Protective Clothing.

## Marking

Each Coverall is identified with an inside and, usually, an outside label. The inside label indicates the protective class as defined by the EU directive, together with other relevant information of use to the end user. The outside label, where attached, indicates the type of fabric.

- 1) Manufacturer's name and brand
- 2) Product's code and description C56 Coverall with hood, elastic cuffs, back and ankles, and zip front with storm flap.
- 3) CE marking signifying compliance with PPE of Category III according to European legislation. Notified Body number of body issuing Article 11 approval. EC Type examination is by Centro Tessile Cotoniero & Abbigliamento S.p.A. Piazza S. Anna 2.21052. EC Notified Body Number 0624.
- 4) European Standards for Chemical Protective Clothing are defined under six types and pictograms attributed for identification. This protective product is made to protect workers from harmful and chemical agents within specific limits as follows:



Type 5 Particle tight Clothing  
Type 6 Limited splash tight clothing

For exact information about which Type the particular garment is classified to, please refer to the label on the inside of the garment.

- 5) The size pictogram indicates actual body measurements to enable personnel to select the correct size as given by the traditional size code.

Body measurement in cm in compliance with EN340

SIZE	CHEST GIRTH (cm)	HEIGHT* (cm)
M	122	163
L	132	173
XL	142	180
XXL	152	185
XXXL	156	189

\*Length of garment measured from the shoulder to the floor

- 6) International Care Symbols



Do Not Wash



Do Not Iron



Do Not Machine Dry



Do Not Dry Clean



Inflammable.

This garment is expressly constructed as protection against chemical hazards, and should not, under any circumstances, come into contact with naked flame, or be used in a combusive situation.

- 7) The open book symbol informs the wearer to study these 'Instructions for Use'
- 8) Where the antistatic symbol is shown the Optimum coverall has been antistatically treated to offer electrostatic protection to Standard EN1149-5(2.49x10<sup>9</sup>Ω)
- 9) Optimum coveralls offers protection of barrier to radioactive particulates to Standard EN1073-2 (Class 1)
- 10) Optimum coverall offers protection of barrier to bacteriophage to Standard EN14126

Test	Result	Class
EN 13034 + EN 13982-1 + EN 1073-2		
<b>Resistance to penetration (EN 368 – EN ISO 6530)</b>		
H <sub>2</sub> O ±30%	0.0%	3/3
NaOH 10%	0.0%	3/3
o-xylene	0.0%	3/3
Butan 1 ol	0.0%	3/3
<b>Repellency to Liquid (EN 368 – EN ISO 6530)</b>		
H <sub>2</sub> O ±30%	95.0%	3/3
NaOH 10%	95.1%	3/3
o-xylene	91.9%	2/3
Butan 1 ol	94.2%	2/3
<b>Abrasion Resistance (EN 530 met2)</b>		
	300 cycles	2/6
<b>Trapezoidal tear resistance (EN ISO 9073-4)</b>		
	45.3 N weft - 26.5 N warp	2/6
<b>Tensile strength (EN ISO 13934-1)</b>		
	100 N weft - 55 N warp	1/6
<b>Puncture resistance (EN 863)</b>		
	14.4 N	2/6
<b>Flex cracking resistance (EN ISO 7854 method B)</b>		
	No damage after 100,000 cycles	6/6
<b>Light spray test (EN 13034-EN 468)</b>		
	No stains on the witness coveralls	pass
<b>Inward leakage test (EN 13982-2)</b>		
	N.p.f. 35.5	Pass - Class 1
	L <sub>mm82/90</sub> ≤ 30% and L <sub>s81/10</sub> ≤ 15%	

## Areas of Use

TYPE 5: Coveralls are manufactured to provide protection to both product and personnel. They are typically used, dependent on the conditions and severity of the toxicity, for protection against airborne particles and fibres.

TYPE 6: Coveralls are manufactured to provide protection from limited splash and spray, where the risk of chemical exposure has been assessed as low and the type of potential exposure is defined as low risk.

## Warnings

The choice of type of fabrics and garments is extremely important to protect the personnel, and the environment. The following facts must be taken into account when deciding on the correct clothing:

- 1) The concentration and the toxicity of the chemical substance to be handled
- 2) Concentration and quantity of liquid spray and splash
- 3) The conditions under which they are used
- 4) For dry and airborne particles, the type, size and toxicity of the particles
- 5) Make sure that the size corresponds with the user
- 6) Check that the product has no defect and is in good condition (no holes, unsewed part etc.)
- 7) The disposable item should be replaced after every use. Abandon the place of work immediately in case of damage of the product

Exposure to certain chemicals or high concentrations may require higher barrier properties, either in terms of the holdout properties of the fabric or in the construction of the suit. Such areas can be protected by garments in Types 1 to 4.

Care should be taken where pockets are attached. Beware of overloading pockets, although provision has been made to allow chemicals to escape, users should be aware that they can harbour contaminants and take adequate precautions.

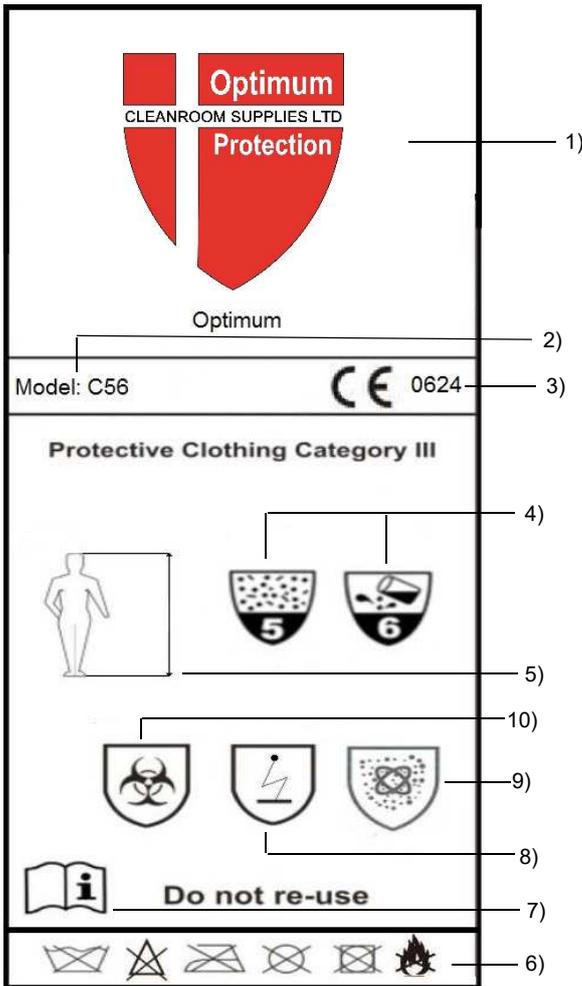
The user shall be the sole judge of the suitability for the type of protection required, and the correct combination of coveralls and ancillary equipment. To obtain full protection, all apertures should be securely closed, but the user shall determine, and allow for, the effect of heat in use. Heat stress and discomfort can be reduced or eliminated by the use of appropriate undergarments, or suitable ventilation equipment. Cleanroom Supplies Ltd cannot accept responsibility for any improper use of garments produced by them.

## Way of Dressing

Open the zip, insert legs and dress, taking care not to break the material. Close the zip and pull the adhesive. Make the adhesive strip attach to the coverall without folding.

## Storage and Disposal

Optimum coverall can be stored in accordance with normal storage practices, and disposed of without harm to the environment. Restrictions on disposal depend solely on contamination during use. If in doubt, please contact your supplier or Cleanroom Supplies Ltd for the correct procedure.



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