# 4545 Technical Data Sheet



# 3M<sup>™</sup> 4545 Protective Coverall

The 3M<sup>TM</sup> Protective Coverall 4545 is designed to help protect against hazardous dusts (Type 5) and light liquid splashes (Type 6).

#### **Key Features**

- New to 3M combination of materials reduces the weight of the coverall while enhancing its softness and drape over the body
- Good protection against dusts and certain light liquid splashes
- Elasticated waist and ankles for convenience and freedom of movement and knitted cuffs for extra comfort
- Three panel hood designed to give improved fit and compatibility with 3M eyewear and respirators
- Two-way zipper with sealable storm flap
- Low linting
- Reinforced gusset

#### **Comfort and Protection**

	Liquid Protection	Type 6 - Light Liquid Splashes (EN 13034:2005 + A1:2009)
	Dust Protection	Type 5 - Solid Airborne Particulates EN ISO 13982-1:2004
4	Anti-static	Anti-static coating* on both sides (EN 1149-5:2008)
	Nuclear	Radioactive particulates Class 1 (EN 1073-2:2002 except EN863 puncture)
	Biohazard	Types 5-B & 6-B – Infective Agents (EN 14126:2003 except ISO 16604

All apparel must be suitably grounded for anti-static treatment to be effective. Does not offer protection against radiation.

## **Approvals**

CE approved under PPE Directive (89/686/ECC), Category III Article 10 Certification: BTTG Testing & Certification Ltd. Notified Body Number: 0338 Article 11B Supervision: SGS United Kingdom Ltd. Notified Body Number: 0120

#### **Materials**

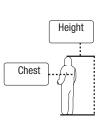
Suit	Polyethylene + Polyester / Polyethylene Laminate			
Zipper	Metal / Nylon / Polyester Braid			
Elastic	Neoprene Rubber			
Cuffs	Polyester			
Thread	Polyester / Cotton			

This product does not contain components made from natural rubber latex.

#### Sizing

An appropriate size garment should be selected to allow sufficient movement for the task whilst maintaining a secure fit.

Height			Chest	
S	64 – 67 in	164 – 170 cm	33 – 36 in	84 – 92 cm
М	66 – 69 in	167 – 176 cm	36 – 39 in	92 – 100 cm
L	69 – 71 in	174 – 181 cm	39 – 43 in	100 – 108 cm
XL	. 70 – 74 in	179 – 187 cm	43 – 45 in	108 – 115 cm
ХХ	<b>L</b> 73 – 76 in	186 – 194 cm	45 – 49 in	115 – 124 cm
3Х	L 76 – 78 in	194 – 200 cm	49 – 52 in	124 – 132 cm
4X	<b>L</b> 78 – 81 in	200 – 206 cm	52 – 55 in	132 – 140 cm



#### **Storage and Disposal**

- Store in dry, clean conditions in original packaging, away from direct sunlight, sources of high temperature, and solvent vapours
- Store within the temperature range -20°C to +25°C (-4°F to +68°F) and with relative humidity below 80%
- Expected shelf life is three years from date of manufacture when stored as stated
- Replace garments if damaged, heavily contaminated or in accordance with local work practice or regulations
- Handle and dispose of contaminated garments with care and in accordance with applicable regulations

## Limited use



#### Warnings and Limitations

tumble dry

Before use read and understand all user instructions and be sure that the product is suitable for the application and fitted correctly. Product must never be altered or modified.

Do not use for:

- Contact with heavy oils, sparks or flame, or combustible liquids;
- Exposure situations resulting in spray or liquid build-up on the suit;
- Environments with high mechanical risks (abrasions, tears, cuts);
- Contact with hazardous substances beyond Type 5/6 certification;
- Environments with conditions of excessive heat.





# **Applications and Performance**

Non-Hazardous Particulates	Yes	
Hazardous Liquid Splash	Yes if chemical is compatible with suit material†	
Non-Hazardous Liquid Splash	Yes	
Hazardous Liquid Spray	No	
Hazardous Dusts and Fibres	Yes	
Organic Solvents	Yes if chemical is compatible with suit material†	
Liquid Continuous Contact/Immersion	No	
Acids/Alkalis	Yes if chemical is compatible with suit material†	
Gases and Vapours	No	

Typical applications may include: paint spraying, industrial clean-up and maintenance, industrial and chemical processing, asbestos inspection, building cleaning, insulation laying, pesticide handling/agriculture (particulate aerosols only), powder coating and pharmaceutical manufacturing. In all cases, a risk assessment should be carried out. Always read product user information. Use limitations and performance data should be considered to ascertain the protection required. If in doubt, contact a safety professional.

† The chemicals against which the product has been tested and certified are listed in the user instructions. For additional chemical penetration data, please call your local 3M Technical Service Representative.

Test	Standard/Test Method	<b>Class/ Result</b>
Abrasion (visual assessment)	EN 530:1994	Class 1
Flex cracking (visual assessment)	ISO 7854:1995	Class 3
Tear resistance	ISO 9073-4:1997	Class 1
Tensile strength	ISO 13934-1:1999	Class 1
Puncture resistance	EN 863:1995	Class 1
Bursting resistance	ISO 13938-2:1999	Class 1
Resistance to ignition	EN 13274-4:2001	Pass
Resistance to blocking	EN 25978:1990	No Blocking
Seam strength	EN ISO 13935-2:1999	Class 2
Repellency to liquids – 30% $H_2SO_4$	EN ISO 6530:2005	Class 3 of 3
Liquid penetration resistance – 30% $H_2SO_4$	EN ISO 6530:2005	Class 3 of 3
Repellency to liquids – 10% NaOH	EN ISO 6530:2005	Class 3 of 3
Liquid penetration resistance – 10% NaOH	EN ISO 6530:2005	Class 3 of 3
Anti-static coating on both sides	EN 1149-1:2006	Pass
Radioactive particulates (TIL)	EN 1073-2:2002	Class 1 of 3
Biological protection	EN 14126:2003	
Synthetic blood penetration resistance	ISO 16603:2004	Class 3
Blood-borne pathogen penetration resistance	ISO 16604:2004	Unclassified
Contaminated solid particle penetration resistance	ISO 22612:2005	Class 3 of 3
Contaminated liquid aerosol penetration resistance	ISO/DIS 22611:2003	Class 3 of 3
Wet bacteria penetration resistance	EN ISO 22610:2006	Class 6

The table left shows the performance of this product when tested under laboratory conditions. Please note that the tests may not reflect the reality of use and do not account for factors such as excessive heat and mechanical wear.

Note: The maximum Class is 6 unless otherwise noted.

For more information on 3M products and services please contact 3M.

#### **Important Notice**

This guide is only an outline. It should not be used as the only means for selecting protective clothing. Before using any protective clothing, the wearer must read and understand the user instructions for each product. Specific country legislation must be observed. If in doubt, contact a safety professional. Selection of the most appropriate PPE will depend on the particular situation and should only be made by a competent person knowledgeable of the actual working conditions and the limitations of PPE.

Final determination as to the suitability of these products for a particular situation is the employer's responsibility. This information is subject to revision at any time. Always read and follow all User Instructions supplied with your 3M<sup>TM</sup> Protective Coveralls in order to ensure correct operation. If you have questions contact 3M Technical Service.

LIMITATION OF LIABILITY: Except as provided above, 3M shall not be liable or responsible for any loss or damage, whether direct, indirect, incidental, special or consequential arising out of the sale, use or misuse of 3M OH&ESD products, or the user's inability to use such products.



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