



Science.
Applied to Life.™



3M Personal Safety
3M™ Protective Apparel

**The suit of armour
that leaves you free
to focus on the job.**

Introduction

At 3M we have a select and high quality range of products, from PPE Directive Category I CE simple coveralls to PPE Directive Category III Coveralls, which provide protection against many hazards.

The range of 3M™ Protective Apparel includes a variety of features, from the use of fabrics with specialist treatments for enhanced wear and added protection, to breathable back panels for increased comfort.

Our experts can work closely with you, to help you identify hazards and best protect your workers against them.

Take a look through our brochure for more information, or for further guidance you could:

- ▶ Call our Health & Safety Helpline on 0870 60 800 60 (UK) or 1 800 320 500 (Ireland).
- ▶ Visit our website @ www.3M.co.uk/coveralls
- ▶ Follow us on twitter @3M_UK_Safety

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Selection

There are many tests and standards that apply to 3M™ Protective Coveralls and selection can be a daunting task. The following section outlines the different options available to help you select the right product for your employees.

Protection Types

Depending on the materials and construction, protective coveralls can be designed for either hazardous applications (certified to CE Category III) or non-hazardous applications (CE Simple Category I). Products for hazardous applications can be tested and certified to any of six different “Type” standards, providing guidance on suitability of use:

Category	Symbol	Protection Type	3M Product Code	
CE Category III 		1. Gas Protection	N/A	HIGH ↑ PROTECTION ↓ LOW
		2. Non-Gas Protection	N/A	
		3. Liquid Jet Protection	4570	
		4. Liquid Spray Protection	4570, 4565	
		5. Particle Protection	4570, 4565, 4545, 4540+, 4535, 4532+, 4530, 4520, 4515, 4510	
		6. Limited Liquid Splash Protection		
CE Category I		CE Simple	4505, 4500	

Additional Standards

Some 3M protective coveralls and their materials are approved to additional standards* for specialist applications.



Protection against nuclear particles (EN 1073-2)



Protection against nuclear particles (EN 1073-2) with exception of EN863 puncture resistance



Total Inward Leakage Class 1



Total Inward Leakage Class 2



Anti-static coating (EN 1149-5)



Refer to User Instructions for further information on anti-static compliance



Protection against micro-organisms (EN 14126)



Protection against micro-organisms (EN 14126) with exception of ISO 16604 (see table below)

Tests for Protection against micro-organisms	4510	4545	4565	4570
ISO 16603 – assesses resistances to penetration under pressure by synthetic blood (visual assessment)	Class 4	Class 3	Class 6	Class 6
ISO 16604 – models resistance to viral penetration under pressure (biological assay)	Unclassified	Unclassified	Unclassified	Class 6
ISO 22610 – assesses resistances to wet bacterial penetration during mechanical contact	Class 6	Class 6	Class 6	Class 6
ISO 22611 – determines resistance to penetration by aerosols containing bacteria	Class 3	Class 3	Class 3	Class 3
ISO 22612 – assesses resistance to dry microbial penetration using talc contaminated with spores	Class 3	Class 3	Class 3	Class 3

*Please refer to product user instructions and packaging for more information.

Materials

The following is a guide that offers a comparison between the materials used in the 3M™ Protective Coverall range.

For full penetration and permeation data please contact our Safety Solutions Specialists on 0870 60 800 60 (UK) or 1 800 320 500 (Ireland).

Polypropylene



Light duty protection against non-hazardous liquids and dust. Designed to offer a particularly good barrier against non-hazardous particles.

Coverall 4500

PE Laminate



Light duty protection against non-hazardous liquids and dust. Designed to offer a particularly good barrier against non-hazardous liquids.

Coverall 4505

SMS



50gsm robust breathable fabric, designed to offer a good barrier against hazardous particles and limited liquid splashes.

Protective Coverall 4515

SMMS



54gsm multi layered SMMS fabric. Breathable and designed to offer a good barrier against hazardous particles and limited liquid splashes.

Protective Coverall 4530

SSMMS



52gsm SSMMS fabric with alcohol and oil repellence treatment applied. Highly breathable and designed to offer a good barrier against hazardous particles and limited liquid splashes.

Protective Coverall 4532+

SMMMS



Sophisticated 43gsm SMMMS fabric, designed to offer increased breathability and a barrier against hazardous particles and limited liquid splashes.

Protective Coverall 4520 and back panels of Protective Coveralls 4535 and 4540+

Microporous PE Laminate



PE laminate is designed to offer a good barrier against hazardous particles and limited liquid splashes, whilst the micropores allow for some breathability.

Protective Coveralls 4510 and 4545.

Also white material of Protective Coveralls 4535 and 4540+

Non-Microporous PE Laminate



Designed to offer a very good barrier against hazardous particles and certain liquid splashes and sprays.

Protective Coverall 4565

Multi-Layer Non-Microporous PE Laminate



Designed to offer an excellent barrier against hazardous particles and certain liquid splashes, sprays and jets.

Protective Coverall 4570

Product features

3M protective coveralls can offer a variety of features depending on your needs. The illustration below highlights some of the features available.



3-Panel Hood

Provides improved fit and increased compatibility with other Personal Protective Equipment (PPE)

Breathable back panels

Reducing the risk of heat stress in hot environments

Two-way zip

With a fully sealable storm flap for extra convenience and protection from contaminants

Knitted cuffs

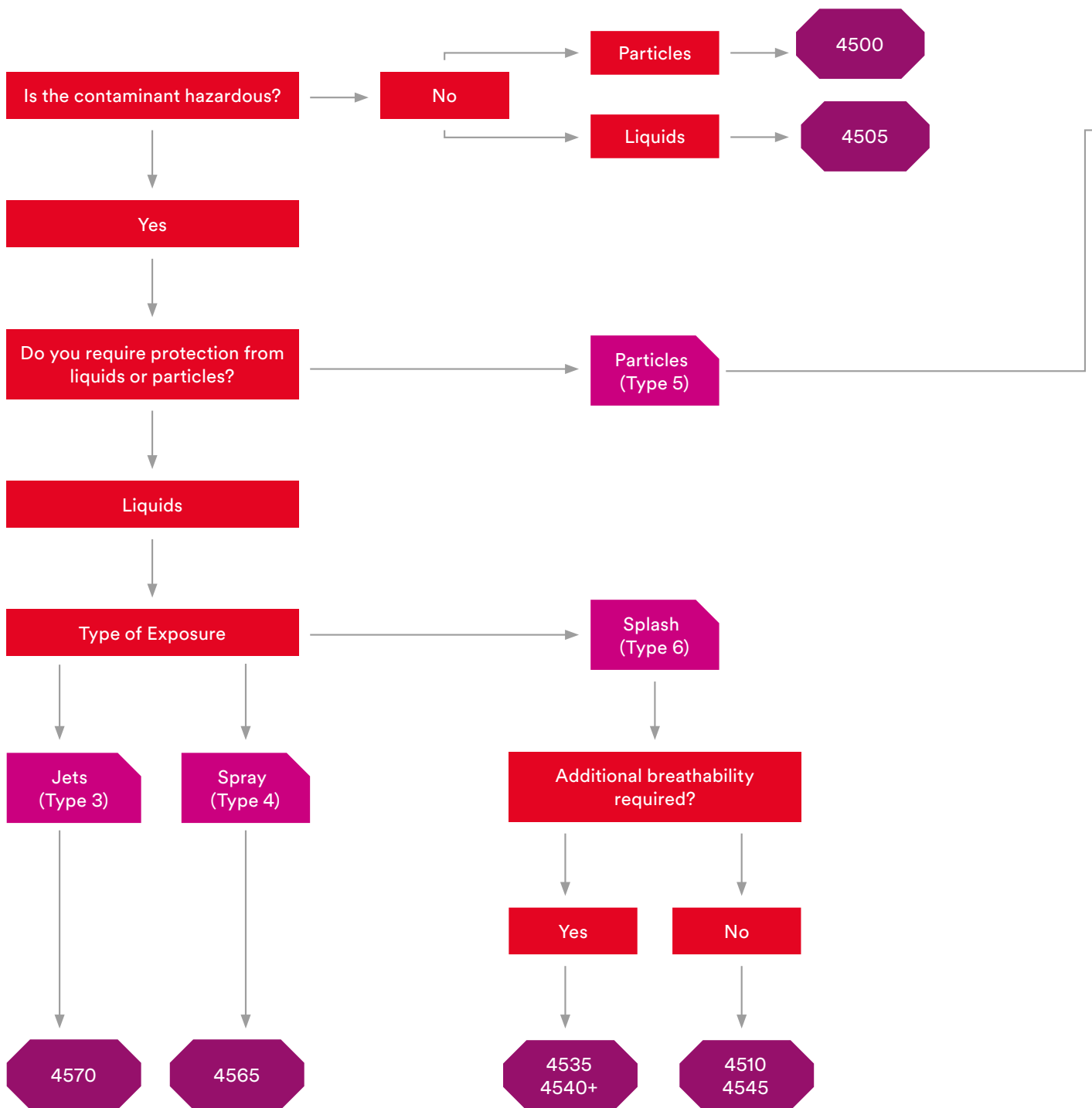
For increased wearer comfort

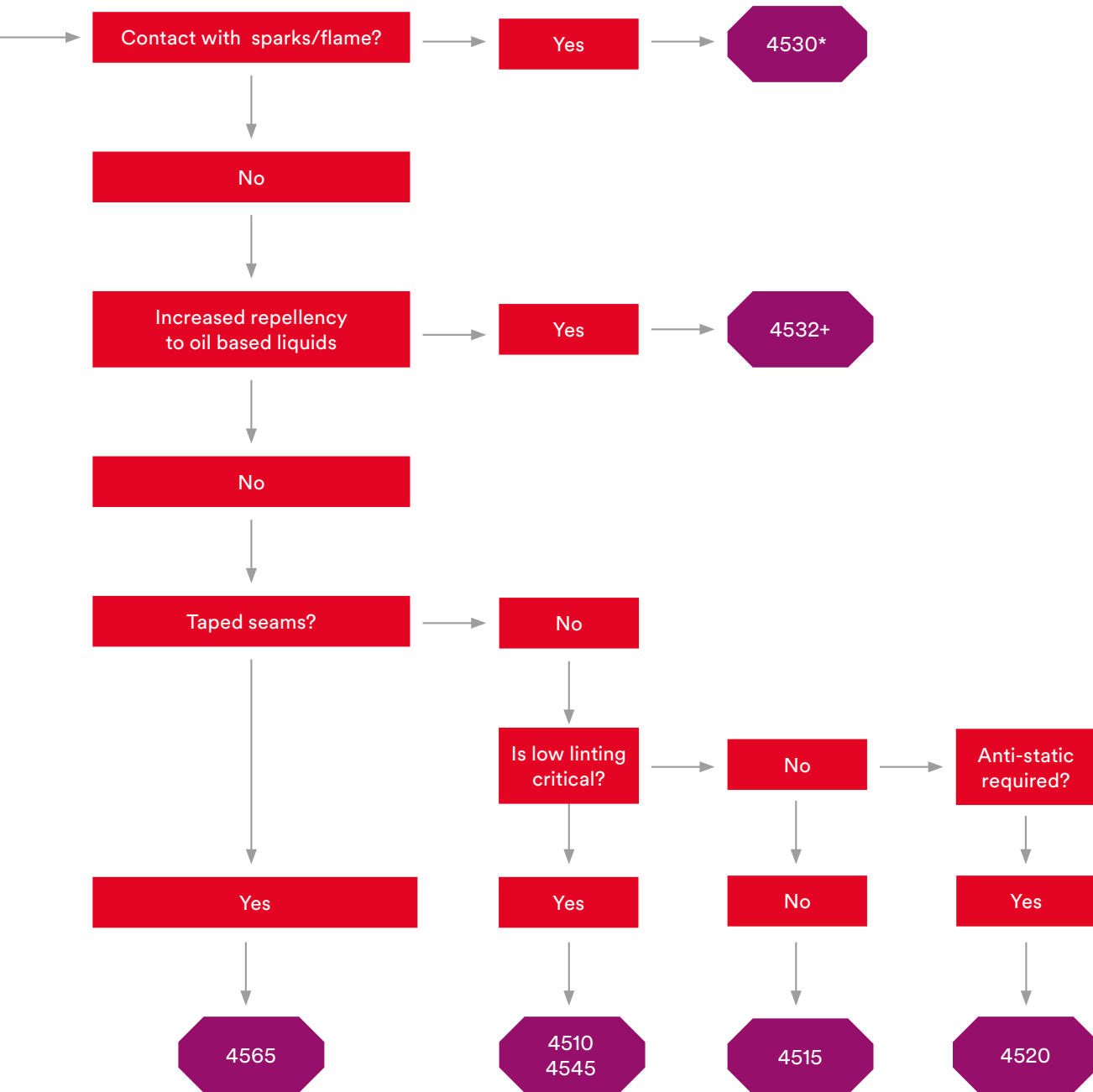
Anatomical design and fit

For optimal wear, coverage and comfort



Selection Flow Chart





*The fabric complies with ISO 14116:2008 for limited flamespread index 1 (must be worn over and index 2 or 3 garment and must not be worn next to skin).

WARNING: This product selector is intended to provide guidance on key features of the 3M product range. Product selection should always be made after a risk assessment by a competent person knowledgeable of the actual working conditions and limitations of the PPE.

3M™ Protective Coveralls

3M™ Coverall 4500

Designed for light duty protection against non-hazardous liquids and dusts. It is designed to offer a particularly good barrier to particles.

- ▶ Elasticated hood, cuffs, ankles and waist
- ▶ 1 way zip with storm flap



3M™ Protective Coverall 4515

Available in a wide range of colours. The breathable fabric is designed to offer protection against hazardous dusts and limited liquid splash.

- ▶ Elasticated hood, cuffs, ankles and waist
- ▶ 2 way zip with storm flap
- ▶ Low linting



3M™ Coverall 4505

Designed for light duty protection against non-hazardous liquids and dusts. Its robust laminated material is designed to offer a particularly good barrier to liquids and oils.

- ▶ Elasticated hood, cuffs, ankles and waist
- ▶ 2 way zip with storm flap
- ▶ Water and oil resistant



3M™ Protective Coverall 4520

Made from extremely lightweight and breathable material and is designed to offer protection against hazardous dusts and limited liquid splashes.

- ▶ Elasticated hood, ankles and waist
- ▶ 2 way zip with sealable tab on storm flap
- ▶ 3-panel hood
- ▶ Knitted cuffs
- ▶ Low linting



3M™ Protective Coverall 4510

Designed to offer cost effective protection against hazardous dusts and limited liquid splashes.

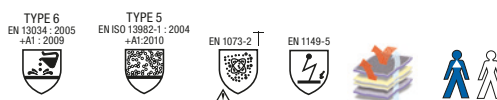
- ▶ Elasticated hood, ankles, cuffs and waist
- ▶ 2 way zip with storm flap
- ▶ Ultra low linting

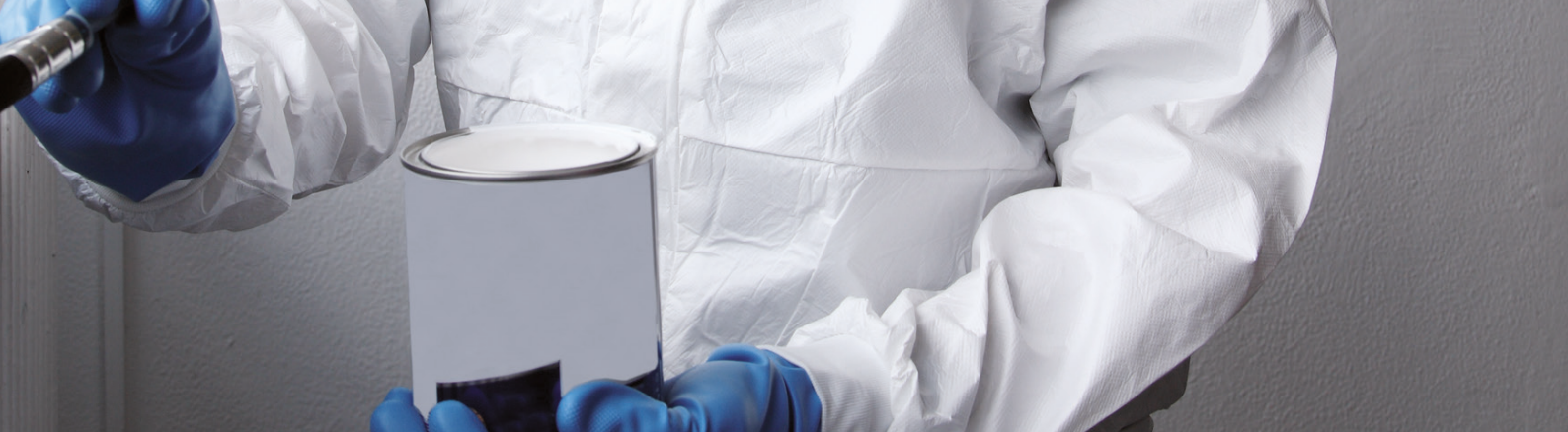


3M™ Protective Coverall 4530

Designed to be lightweight and breathable whilst offering protection against hazardous dusts and limited liquid splashes. The fabric complies with ISO 14116:2008 for limited flamespread index 1 (must be worn over an index 2 or 3 garment and must not be worn next to skin).

- ▶ Elasticated hood, ankles and waist
- ▶ 2 way zip with fully sealable storm flap
- ▶ 3-panel hood
- ▶ Knitted cuffs
- ▶ Low linting





3M™ Protective Coverall 4532+

Made from highly breathable fabric with a specialist coating, providing anti-static protection & enhanced liquid repellency.

- ▶ Enhanced and reinforced triangular gusset panel
- ▶ Elasticated hood, ankles and waist
- ▶ 2 way zip with fully sealable storm flap
- ▶ 3-panel hood
- ▶ Knitted cuffs
- ▶ Low linting



3M™ Protective Coverall 4545

Made from extremely soft, lightweight, yet durable fabric which provides a good barrier to hazardous particles and limited liquid splash. Supplied in vacuum packaging.

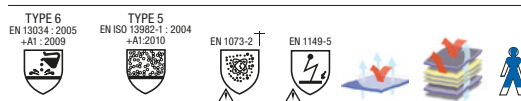
- ▶ Elasticated hood, ankles, and waist
- ▶ 2 way zip with fully sealable storm flap
- ▶ 3-panel hood
- ▶ Knitted cuffs
- ▶ Ultra low linting



3M™ Protective Coverall 4535

Provides a superb balance of comfort and protection. The microporous PE laminate at the front of the garment is designed to offer a good barrier to limited liquid splash, whilst the large SMMMS breathable back panel increases wearer comfort.

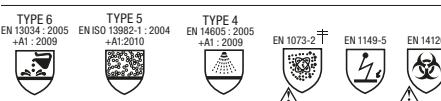
- ▶ Elasticated hood, ankles and waist
- ▶ 2 way zip with storm flap
- ▶ Knitted cuffs
- ▶ Low linting



3M™ Protective Coverall 4565

Made from a soft lightweight fabric with taped seams, providing a very good barrier to hazardous particles and limited liquid splash and spray. Supplied in vacuum packaging.

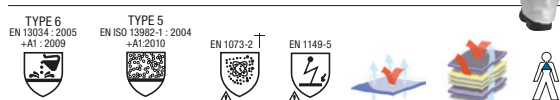
- ▶ Elasticated hood, ankles and waist
- ▶ 3-panel hood
- ▶ 2 way zip with fully sealable storm flap
- ▶ Knitted cuffs
- ▶ Ultra low linting



3M™ Protective Coverall 4540+

A highly versatile protective coverall, which is mostly made from a unique microporous PE laminate, designed to be softer and drape better over the body. It is designed to offer a good barrier to particles and limited liquid splash but it also features a breathable SMMMS back panel.

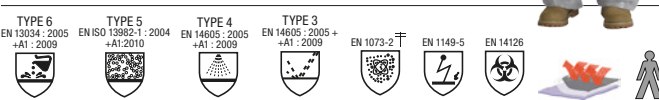
- ▶ Elasticated hood, ankles and waist
- ▶ 2 way zip with fully sealable storm flap
- ▶ 3-panel hood
- ▶ Knitted cuffs
- ▶ Low linting



3M™ Protective Coverall 4570

Designed to offer an excellent barrier to hazardous particles and certain liquid splashes, sprays and jets.

- ▶ Elasticated hood and ankles
- ▶ 3-panel hood
- ▶ Double front closing system with large zip pull for easy wear
- ▶ Elasticated cuffs with thumb loops
- ▶ Ultra low linting



Accessories

3M™ Lab Coats

3M™ Lab Coat 4440

- ▶ Made from the same microporous PE laminate material as the 3M™ Protective Coverall 4535
- ▶ Knitted cuffs
- ▶ Offers a barrier against non-hazardous particles and light liquid splashes
- ▶ Zip fastener
- ▶ Material has an anti-static treatment



3M™ Lab Coat 4432+

- ▶ Made from the same SSMMS material as the 3M™ Protective Coverall 4532+¹
- ▶ Oil and alcohol resistant coating
- ▶ Offers a barrier against non-hazardous particles and liquid light splashes
- ▶ Zip fastener
- ▶ Internal pocket
- ▶ Material has an anti-static treatment



3M™ Lab Coat 4400

- ▶ Made from the same PP material as the 3M™ Coverall 4500
- ▶ Designed for light duty applications
- ▶ Offers a barrier against non-hazardous particles and light liquid splashes
- ▶ Zip fastener
- ▶ Internal pocket
- ▶ Available in white and blue



3M™ Overboot Covers

3M™ Overboot 450

Reduced Slip Sole



3M™ Overboot 440

Standard Sole



- ▶ Made from the same microporous PE laminate material as the protective coverall 4535
- ▶ Elastic at the calf
- ▶ Universal size with ties to help provide a good fit
- ▶ Laminated material ties to minimise particle shed and contamination in particle restricted environments such as clean rooms
- ▶ Overboot 450 features a reduced slip sole
- ▶ Material has an anti-static treatment

3M™ Overshoe Covers

3M™ Overshoe 442

- ▶ Made from the same microporous PE laminate material as the protective coverall 4535
- ▶ Elastic at ankle
- ▶ Material has an anti-static treatment



3M™ Overshoe 402

- ▶ Offers a general barrier to non-hazardous substances
- ▶ Reduced slip print on base
- ▶ Elastic at ankle



3M™ Oversleeves

3M™ Oversleeve 444



3M™ Oversleeve 445



- ▶ Made from the same laminated material as the 3M™ Protective Coverall 4510
- ▶ Offers a general barrier to non-hazardous substances
- ▶ 40.5cm/16 inch protection covering wrist to top of arm
- ▶ Elastic finish on top end
- ▶ Knitted cuffs featured on the oversleeve 445

Head Protection

3M™ Overhood 446

- ▶ Made from the same laminated material as the protective coverall 4510
- ▶ Drapes over the shoulders offering excellent coverage



3M™ Mob Cap 407



































- ▶ Designed to help prevent hair from contaminating the working environment
- ▶ Universal size



N.B. 3M Accessories (excluding lab coats) are not CE marked and are not intended as PPE for use in hazardous environments.



Selection Guide by Application

Product Selector												
	4500	4505	4510	4515	4520	4530	4532+	4535	4540+	4545	4565	4570
CERTIFICATION**	CATEGORY I	CATEGORY I	CATEGORY III	CATEGORY III	CATEGORY III	CATEGORY III	CATEGORY III	CATEGORY III	CATEGORY III	CATEGORY III	CATEGORY III	CATEGORY III
CERTIFICATION**	N/A	N/A	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 EN 14126 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 EN 14126 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 EN 14126 	TYPE 6 EN 13034 :2005 +A1:2009 TYPE 5 EN ISO 15082-1 :2004 +A1:2010 EN 1073-2† EN 1149-5 
Material Weight	45gsm	67gsm	47gsm	50gsm	43gsm	54gsm	52gsm	55gsm	49gsm	49gsm	49gsm	92gsm
Sizes	S-4XL	S-4XL	S-4XL	S-4XL	S-4XL	M-2XL	S-4XL	S-3XL	S-4XL	S-4XL	S-4XL	S-4XL
Colours												
Light-duty cleaning, warehousing, janitorial	○	○		●								
Asbestos Inspection, site preparation, insulation			●	○	○	●	●	●	●	●	●	
Asbestos removal			●	●	●	●	●	●	●	●	○	
Light industrial cleaning, machine maintenance			○	●	●	○	○	○	○	○	○	
Pharmaceutical processing, handling toxic powders			●		●	●	●	●	●	●	○	
Painting & coating, resins			○			●	○	○	○	○	●	
Cleanrooms			●							○	○	
Pesticide spraying											○	●
Chemical mixing and handling											●	○
Chemical spills, decontamination, tank cleaning												○

○ Most popular choice ● Suitable for consideration ** See page 4 or product technical datasheets for full details.

Customisation

We work in close partnership with you. Through regular contact and understanding your ambitions, goals and concerns we strive to successfully develop specific solutions that fully satisfy your requirements and ensure the best outcome for you. This may mean that an 'off the shelf solution' doesn't do the job. So contact one of our team of Safety Solutions Specialists today via our helpline to discuss your specific needs.

 @3M_UK_Safety

For more information on all our products, call 3M
Personal Safety Division on **0870 60 800 60 (UK)** and
1800 320 500 (Ireland) or visit www.3M.co.uk/safety



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