

**3M** Science.  
Applied to Life.™

3M Personal Safety Division

# European Product Catalogue 2019/2020.





3M is an innovative, global science-based company that is focused on developing products that improve people's lives in a multitude of ways. 3M technologies developed can be found all around you. From in your home and office to in hospitals, doctor and dentist offices, your computer, your car and even in your phone, 3M helps people and business in hundreds of ways every day. Our inventions can be found in the roads, trains, and airplanes.

Our company is centered around a culture of innovation. We foster an atmosphere that provides our employees the freedom to create, the responsibility to deliver and the opportunity to connect ideas and technologies in unexpected ways. From concept to creation, we manufacture our products to exacting quality standards, while looking after our people, our communities and our planet.

Founded in 1902, we have a proud history as a company that strives to be ethical and innovative. From science that works behind the scenes in products you use every day and technology embedded in processes that help industries thrive to tangible products we use every day, the science provided by 3M can be found in many aspects of our lives.

We live our motto every day.  
**3M. Science. Applied to life.**

# 3M Personal Safety Division

## Services

We believe that with a quality product, it is important that the customer also receives quality services. Not only do we provide different varieties of training and education, but we also have many other tools available to our customers.

### Fit testing is key

In order to be fully protected, it is essential that PPE fits correctly. We provide fit testing for respirators (and fit testing guidelines online) as well as E-A-Rfit Validation testing for earplugs and earmuffs. We know that everyone is different and in order to get the best protection it is crucial that they know how to correctly fit and wear their personal protective equipment.

### 3M™ Respiratory Fit Testing System

3M Respiratory Protection offers a wide range of disposable and reusable respirators, as well as Powered and Supplied Air Respiratory Systems. However, even high quality products need a secure fit in order to protect the wearer. One model of respirator may not fit everyone. When choosing a respirator users should be fit tested in accordance with national requirements. For information on fit testing procedures, contact your safety officer or 3M. Even after a user has had a fit test, a fit check should be carried out before each use. A Respiratory Fit Check guide is available on **page 23** of this catalogue.



### 3M™ E-A-Rfit Dual-Ear Validation System

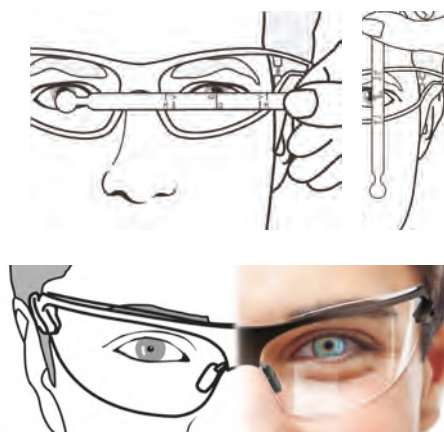
As the leader in hearing protection, 3M offers a complete solution, with dual-ear and earmuff testing capabilities plus a user-friendly interface. The 3M™ E-A-Rfit Dual-Ear Validation System is the fast and easy way to find your employees' PAR, because we know how important it is to make your hearing conservation program fit seamlessly into your operation.

Get results you can trust. The 3M™ E-A-Rfit Dual-Ear Validation System measure the effectiveness of the earplug or earmuff inside the employee's ear providing accurate, quantitative results. Because you can simultaneously test both ears, you have more to focus on education including the importance of fit and protection.



### 3M™ Eyewear Fit System

When it comes to eyewear, a comfortable, well-fitted workforce is likely to be more effective. Current standards suggest careful consideration should be given to eyewear fit, however there is no specific guidance on how to evaluate eyewear fit on an individual. In view of this, 3M have developed the Eyewear Fit System, a simple 6 step method, designed to help select the best fitting eyewear for an individual.



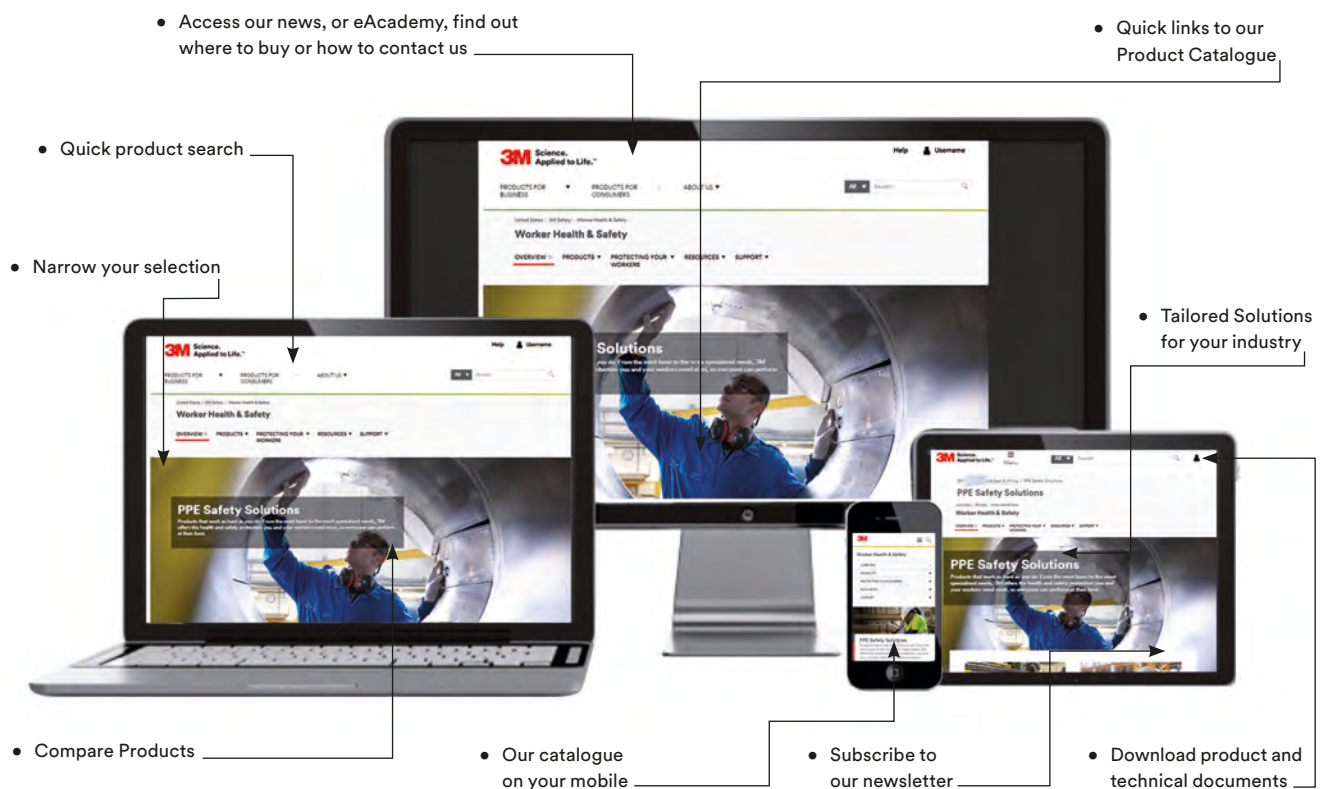
**Find out more by contacting your 3M Personal Safety Sales Representative.**

# 3M Personal Safety Division

## 3M Online

A selection of downloadable and printable documents are available online, such as selection tools, fit test guides, and guidance on the importance of protection. From our website you will be able to access product information, with market area specifications, to help select the right personal protective equipment for the right environment. You will also be able to discover webinars by experts concerning health and safety in the workplace as well as our own eAcademy.

Everything in one place, on your computer, laptop, tablet or mobile.



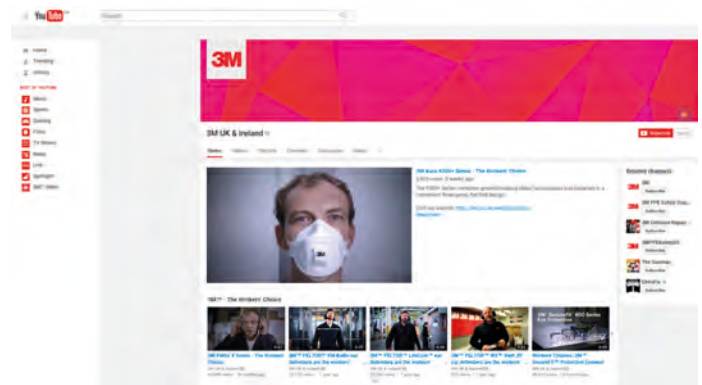
## 3M PPE Safety Solutions

Subscribe to our channel on YouTube to watch customer testimonials, technical support or product information videos.

Visit [www.youtube.com/user/3MPPESafetySolutions](http://www.youtube.com/user/3MPPESafetySolutions)

You can also:

Find us on Facebook  or Follow us on Twitter 





# 3M Personal Safety Division

## Science of Safety

3M's new Science of Safety approach can support you with guidance on:



**Selection**



**Training**



**Fit validation**

3M delivers consistent quality around the world helping you select the correct PPE for your workers, helping to ensure your workers are educated on the correct use of PPE and raising awareness of how important fit and comfort are to the health and wellbeing of your workforce.

For more information visit [www.3M.eu/SoS](http://www.3M.eu/SoS)

**40%** 

**of employees incorrectly select or use PPE**

Source: HSE Research Report RR720 'Real world use and performance of hearing protection'

## H&S officials

and employers have a duty to provide the correct safety equipment and training.

Maintaining consistency in this arena can prove difficult, hindering the health and safety process.

Many companies don't have the ability to test whether PPE fits the employee properly.

Employees are at risk of damaging their health long term which may lead to an increase in liability for employers.



# 3M Personal Safety Division



## Why partner with 3M for your health and safety?

3M can deliver consistent quality around the world

**Our industry-leading approach embraces best practice on a global level**



Selection



Training

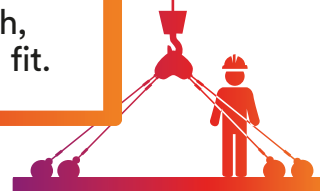


Fit validation

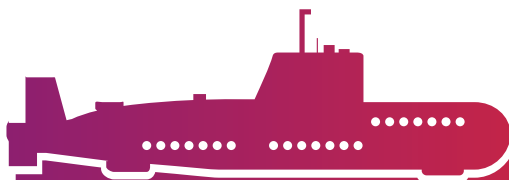


## 3M PPE equipment

industry-leading breadth and depth, helping to optimise protection and fit.



3M can give local support and advice wherever you do business



[www.3M.eu/SoS](http://www.3M.eu/SoS)

#3MScienceOfSafety



# 3M Personal Safety Division

## Productivity

We don't only aim to improve the safety of our customers, we also want to help them keep costs down. Our products are designed to last and to provide more efficient protection, but they can bring efficiencies in other ways.

### PELTOR™

As many supervisors know, efficient on-site communication can save a lot of time throughout the duration of a project. Recently, a study by Lund University Faculty of Engineering in Sweden showed that downtime and interruptions were reduced by 19% when two-way radio communication headsets were used. A single construction worker gained 380 minutes of productive time per week.

The study was conducted by Victoria Joang and Aidin Sakikovic, two researchers from Lund's graduate program in civil engineering. They compared two work weeks on one of Skanska's major water main projects in Sweden, analysing similar work activities during each week. In the first week, the workers did not use two-way radios. In the second week, they were equipped with 3M™ PELTOR™ WS™ LiteCom Headsets, which have a built-in two-way radio and a Bluetooth® wireless technology mobile phone connection.

Detailed follow-up interviews showed that the big advantage was being able to quickly relay and receive messages on the job, especially on large construction sites where eye contact is not possible. Improved team spirit was another reported benefit.

### **Speedglas™**

Another example of efficiency can be seen in our Welding portfolio, where, by using a 3M™ Speedglas™ Welding Helmet with auto-darkening filters, companies can save up to 1€ per hour.

We have created a Return on Investment calculator for the welding portfolio, where you can input all your numbers to see how much your company would save by using these auto-darkening filters. From this we have calculated that a company with low salary costs who have previously not used an auto-darkening filter, would be able to save 75 euro cents per hour per worker by using almost any auto-darkening filter. So if they had 100 workers, all wearing an auto-darkening filter, 5 days a week, for 8 hours they would make a weekly company saving of 3000 euros.





# Body Protection









# Protective Apparel

**Differential Permeation. Applied to returning you home safely.**

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

The range of 3M™ Protective Apparel offers 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.











## Standards

There are many tests and standards that apply to 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. For more information on how the tests are done, and what they mean practically to you, review the technical bulletins and guides within our 3M protective apparel literature.





### 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 (approved as CE Simple Category 1). 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	Standard	3M Products
CE Category III 		1 – Gas Tight	EN 943-1	N/A
		2 – Non-gas tight	EN 943-1	N/A
		3 – Liquid Jet Protection	EN 14605 + A1	4570
		4 – Liquid Spray Protection	EN 14605 + A1	4570, 4565
		5 – Hazardous Particulate Protection	EN ISO 13982	4570, 4565, 4545, 4540+, 4535, 4532+, 4530, 4520, 4515, 4510
		6 – Liquid Splash Protection	EN 13034 + A1	
CE Category I		CE Simple		4500

### Additional Standards

Some 3M™ Protective Coveralls and their materials are approved to additional standards for specialist applications.

Symbol/Standard	Protection Type
	Protection against micro-organisms or infective agents (EN 14126:2003)
	Protection against nuclear particles (EN 1073-2:2002)
	Anti-static (EN 1149-5:2008)
ISO 15025 / ISO 14116	Limited Flame Spread Resistance
	Where added to the above symbols please refer to the appropriate user instructions for further information on the compliance of this product



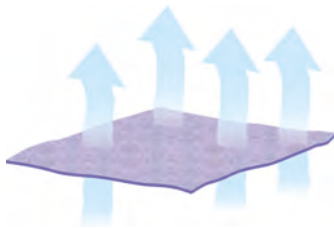
# 3M™ Protective Apparel

## Materials

The following is a guide that offers a brief description and comparison of the materials used in 3M's protective coverall range. Base materials can be treated, for instance, with an anti-static treatment, to enhance the total protection offered.

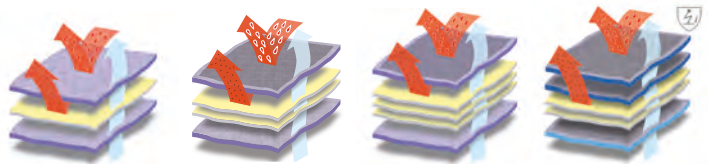
### Non-woven Polypropylene

Offers comfortable light-duty protection against nonhazardous liquids and dust.



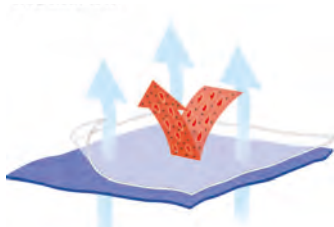
### Spunbond-Meltblown Polypropylene (SMS)

'SMS' can be layered differently to adjust the protective and physical properties of the material. Standard SMS-material is very breathable and offers a good barrier against dusts and limited liquid splashes. If treated materials can achieve an enhanced level of splash protection, such as the 3M™ Protective Coverall 4532+.



### Microporous Laminates

'Microporous laminates' offer a higher level of liquid splash protection, while the micropores allow for some breathability.



### Non-microporous Laminates

'Non-microporous laminates' can offer an even higher level of liquid protection. Adding multiple layers of the laminate can also increase robustness and chemical holdout.



## Design Features

3M™ Protective Coveralls can offer a variety of features depending on your needs. The illustration below highlights some of the features available:





# 3M™ Protective Apparel

## 3M™ Coverall 4500

The 3M™ Coverall 4500 is a CE Simple suit designed and suitable for non-hazardous applications.

Whether it is for domestic DIY use, light duty industrial cleaning and maintenance applications or environments where hygiene and cleanliness are important, the 3M coverall 4500 is an excellent economic solution to help keep wearers clean and protected from light non hazardous splashes.

### Features and Benefits:

- Breathable and light duty protection
- Strong, durable 45gsm polypropylene fabric
- Storm flap over zip
- Elasticated hood, cuffs, ankles and waist
- Available in blue and white
- Serged seams

### Typical Applications

#### Popular Choice

- Light duty cleaning
- Warehousing
- Janitorial
- Domestic DIY



#### 3M™ Coverall 4500

Colour: White and blue

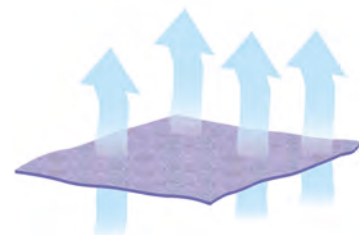
CE Category I

Sizes: S-4XL



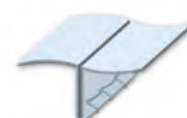
#### Fabric material

The material used in the 3M coverall 4500 is a soft breathable polypropylene, which aids air flow helping reduce heat stress and improve comfort. The comfortable coverall for non-hazardous protection.



#### Seam Technology

Seams are serged for Type 5/6 protection.



# 3M™ Protective Apparel

## 3M™ Protective Coverall 4510



The 3M™ Protective Coverall 4510 is an economic solution which offers quality and protection from limited chemical splashes such as those from paint spraying and is certified to the PPE Directive Category III, Type 5/6 protection standard. The material is microporous, allowing air and moisture to escape from within the suit, while helping to protect from the hazard on the outside.

### Typical Applications

#### Popular Choice

- Light industrial cleaning
- Machine maintenance
- Paint spraying & powder coating
- Coating & resin applications
- Crime scene investigation

#### Suitable for Consideration

- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing & handling toxic powders
- Cleanrooms

### Features and Benefits:

- Excellent barrier against dry particles and certain limited liquid chemical splash (CE Type 5/6)
- Laminated microporous material
- 2-way zipper with storm flap for added on-off convenience and extra protection
- Elastic cuffs, waist and ankles for a better fit and freedom of movement
- Super low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Biological protection tested to EN 14126



### 3M™ Protective Coverall 4510 Type 5/6

Colour: White

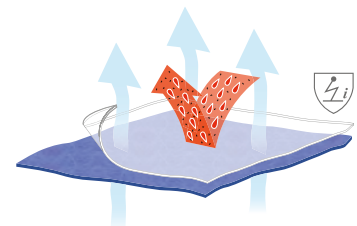
CE Category III

Sizes: S-4XL



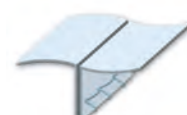
#### Fabric material

The anti-static treated 3M protective coverall 4510 material is made using a layer of soft, spunbond polypropylene and a layer of light, but high quality polyethylene laminate film giving good levels of barrier efficiency and protection.



#### Seam Technology

Seams are serged for Type 5/6 and certain seams bound for extra protection.





# 3M™ Protective Apparel

## 3M™ Protective Coverall 4515



### Low cost hazardous dust protection

The 3M™ Protective Coverall 4515 is an economic solution to protect from hazardous dusts such as asbestos fibres exposed to during site inspection. While protecting on the outside, the breathable material allows air to escape from the inside to reduce heat build-up and discomfort. Available in white, blue and orange, the range is certified to PPE Directive Category III, Type 5/6 protection for both hazardous dusts and liquid splashes.

### Typical Applications

#### Popular Choice

- Asbestos inspection
- Site preparation, insulation
- Construction

#### Suitable for Consideration

- Cement manufacturing
- Grinding & polishing
- Light industrial cleaning
- Machine maintenance

### Features and Benefits:

- Excellent barrier against dry particles and limited liquid splash (CE Type 5/6)
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Robust, highly breathable 50gsm SMS material
- 2-way zipper with storm flap for added on-off convenience and extra protection
- Elastic cuffs, waist and ankles for a better fit and freedom of movement
- Low-linting
- Available in white, blue and orange



### 3M™ Protective Coverall 4515 Type 5/6

Colour: White, blue and orange

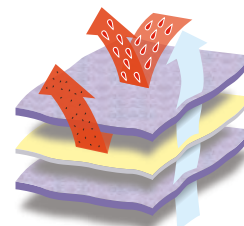
CE Category III

Sizes: S-4XL



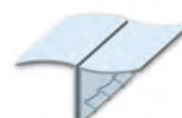
### Fabric material

The material used in the 3M protective coverall 4515 sandwiches a single thick filtering layer of melt-blown polypropylene between two thinner layers of softer spun bond polypropylene delivering a finished durable, breathable 50gsm protective material that aides air flow to reduce heat stress and improve comfort.



### Seam Technology

Seams are serged for Type 5/6 protection.



# 3M™ Protective Apparel

## 3M™ Protective Coverall 4520



Made using the latest lightweight, breathable material technology, 3M presents the 3M™ Protective Coverall 4520, a PPE Directive Category III, Type 5/6 protective garment.

### Typical Applications

#### Popular Choice

- Asbestos inspection
- Site preparation, insulation
- Pharmaceutical processing and handling toxic powders

#### Suitable for Consideration

- Asbestos removal
- Cement manufacturing
- Grinding & polishing
- Light industrial cleaning
- Machine maintenance
- Construction work
- Light paint spraying/powder coating

### Features and Benefits:

- Excellent barrier against dry particles and limited liquid splash (CE Type 5/6)
- SMMMS material technology for reduced heat stress and breathable comfort all day
- Low-linting
- Extremely lightweight and comfortable compared to many certified coveralls available in the marketplace
- 3-panel elasticated hood for enhanced compatibility with complimentary PPE
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- 2 way zipper with stormflap for added convenience and extra protection
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Model with elasticated cuffs and thumbloop also available



### 3M™ Protective Coverall 4520 Type 5/6

Colour: White with green back panel

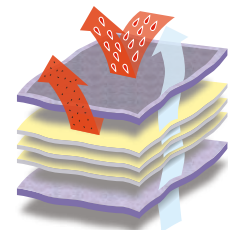
CE Category III

Sizes: S-4XL



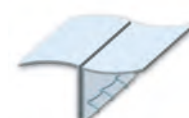
### Latest Material Technology

With 3 layers of melt-blown polypropylene in-between 2 layers of spunbound polypropylene, the 3M protective coverall 4520 fabric has been specifically designed to improve air flow and breathability, thereby reducing heat stress and enhancing comfort levels. The middle 3 layers act as a filter to effectively protect against hazardous dust and splash and the outer 2 layers offer strength and durability whilst maintaining a soft, comfortable feel.



### Seam Technology

Seams are serged for Type 5/6 protection.



# 3M™ Protective Apparel

## 3M™ Protective Coverall 4520CS



Made using the latest lightweight, breathable material technology, 3M presents the 3M™ Protective Coverall 4520CS, a PPE Directive Category III, Type 5/6 protective garment.

With the same premium comfort and protection as the standard 3M protective coverall 4520, but with a standard collar for greater compatibility with Powered and Supplied Air Respirators.

### Typical Applications

#### Popular Choice

- Asbestos inspection
- Site preparation, insulation
- Pharmaceutical processing and handling toxic powders

#### Suitable for Consideration

- Asbestos removal
- Cement manufacturing
- Grinding & polishing
- Light industrial cleaning
- Machine maintenance
- Construction work
- Light paint spraying/powder coating

### Features and Benefits:

- Excellent barrier against dry particles and limited liquid splash (CE Type 5/6)
- SMMMS material technology for reduced heat stress and breathable comfort all day
- Extremely lightweight and comfortable compared to many certified coveralls available in the marketplace
- Low-linting
- Collar standard neck finish for when a hood is not required or interferes with alternative head, face or respiratory protection
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- 2 way zipper with stormflap for added convenience and extra protection
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles



### 3M™ Protective Coverall 4520CS Type 5/6

Colour: White with green back panel

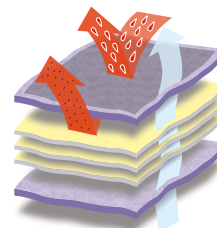
CE Category III

Sizes: M-2XL



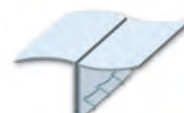
### Latest Material Technology

With 3 layers of melt-blown polypropylene in-between 2 layers of spunbound polypropylene, the 3M protective coverall 4520 fabric has been specifically designed to improve air flow and breathability, thereby reducing heat stress and enhancing comfort levels. The middle 3 layers act as a filter to effectively protect against hazardous dust and splash and the outer 2 layers offer strength and durability whilst maintaining a soft, comfortable feel.



### Seam Technology

Seams are serged for Type 5/6 protection.





# 3M™ Protective Apparel

## 3M™ Protective Coverall 4530



The 3M™ Protective Coverall 4530 is a PPE Directive, CE Category III, Type 5/6 protective garment, made from a breathable SMMS material technology and includes a host of comfort features. The material also has a flame resistance treatment, which allows the fabric to perform to ISO 14116 Index 1\*.

### Typical Applications

#### Popular Choice

- Metal grinding and polishing
- Oil & Gas industry
- Cement manufacturing
- Welding

#### Suitable for Consideration

- Asbestos inspection and removal
- Site preparation and insulation
- Light industrial cleaning
- Machine maintenance
- Pharmaceutical processing
- Handling toxic powders
- Painting and coating

### Features and Benefits:

- Excellent barrier against dry particles and certain limited liquid chemical splash (CE Type 5/6)
- Limited flame spread resistance to ISO 14116 Index1/0 (material only)
- Highly breathable robust 54gsm SMMS material
- 3-panel elasticated hood for enhanced compatibility with complimentary PPE
- 2-way zipper with sealable storm flap for added on-off convenience and extra protection
- Knitted cuffs and elastic waist and ankles for a better fit and freedom of movement
- Enhanced triangular gusset panel
- Low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Available in blue (with white triangle) and white



### 3M™ Protective Coverall 4530 Type 5/6

**Colour:** Blue with white back panel

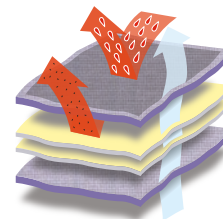
**CE Category** III

**Sizes:** M-4XL



#### Fabric Material

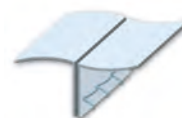
With layers of Meltblown polypropylene in between 2 layers of spun bond polypropylene the 3M protective coverall 4530 fabric allows airflow, increasing breathability, reducing heat stress and improving comfort. The melt blown layers are inserted with hot air and act as a barrier while the two outer spun bond layers make the coverall soft and breathable.



\* The additional flame spread resistance treatment enables the material to give limited flame spread protection (ISO 14116) when worn over an Index 2 or 3 garment. This may extend the life of the more expensive thermal protective garments.

#### Seam Technology

Seams are serged for Type 5/6 protection.



# 3M™ Protective Apparel

## 3M™ Protective Coverall 4532+



The 3M™ Protective Coverall 4532+ range is made from a highly breathable and lightweight 5 layered SSMMS material, providing the wearer with CE Category III, Type 5/6 protection with specialist treatments providing anti-static protection and an enhanced liquid repellency.

### Typical Applications

#### Popular Choice

- Metal grinding and polishing
- Oil/greasy environments
- Painting and coating
- Cement manufacturing

#### Suitable for Consideration

- Light industrial cleaning
- Machine maintenance
- Pharmaceutical processing
- Handling toxic powders
- Resin applications

### Features and Benefits:

- Specialist coatings enable this product to be used in many applications not usually suitable for SMS Based coveralls
- SSMMS material, see Fabric Material
- 3-panel elasticated hood for enhanced compatibility with complimentary PPE
- Knitted cuffs and elasticated waist and ankles
- 2-way zipper for added convenience and a storm flap with full sealable tape for extra protection
- Enhanced and reinforced triangular gusset panel to increase product durability
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Low linting
- Available in blue (with a light blue triangle back panel) and Cool white



### 3M™ Protective Coverall 4532+ Type 5/6

**Colour:** Blue with a light blue back panel and Cool white

**CE Category III**

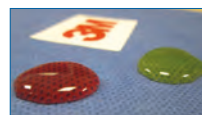
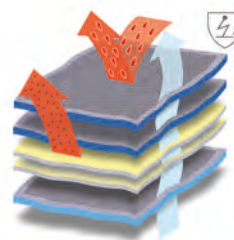


**Sizes:** S-4XL



#### Fabric Material

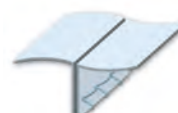
The 3M protective coverall 4532+ is made using a 52gsm SSMMS, which consists of two outer layers of spunbond polypropylene (SS) encasing two layers of melt-blown polypropylene (MM) and a third layer of spunbond (S) on the underside. The fabric has been specifically designed to be durable whilst enabling air flow thereby reducing heat stress and enhancing wearer comfort. The middle 2 layers act as a filter to effectively protect against noxious dust and splash whilst the outer layers offer strength and increased liquid hold out from the alcohol and oil repellence treatment.



Unique treatment encourages the oil to bead rather than soak through.

#### Seam Technology

Seams are serged for Type 5/6 and certain seams bound for extra protection.



# 3M™ Protective Apparel

## 3M™ Protective Coverall 4535



If you're looking for a balance of protection, durability and additional comfort, look no further than the 3M™ Protective Coverall 4535. Certified to PPE Directive Category III, Type 5/6 protection, it utilises a dual material design with added comfort features and enhanced breathability to optimise wearer acceptance.

### Typical Applications

#### Popular Choice

- Coating & resin applications
- Light industrial cleaning
- Machine maintenance
- Paint spraying & powder coating
- Forensics

#### Suitable for Consideration

- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing and handling toxic powders

### Features and Benefits:

- Excellent barrier against dry particles and certain limited liquid chemical splash (CE Type 5/6)
- Robust, super low-linting laminated microporous material
- Extra large breathable back panel for improved air circulation and reduced heat stress
- 2-way zipper with storm flap for added on-off convenience and extra protection
- Knitted cuffs with elasticated waist and ankles for increased comfort and freedom of movement
- Low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles



### 3M™ Protective Coverall 4535 Type 5/6

Colour: White with blue back panel

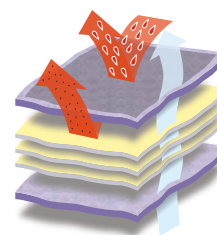
CE Category III

Sizes: S-3XL

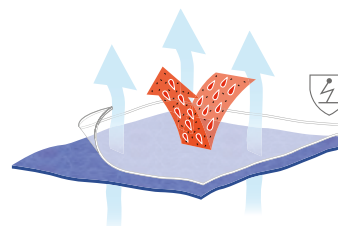


#### Fabric Material

The front of the 3M protective coverall 4535 combines a high quality polyethylene laminate providing an excellent barrier, on top of a layer of soft, spunbond polypropylene fibres creating a robust, yet comfortable 55 gsm protective fabric. The large blue back panel is made from 5 layers of spunbond and meltblown polypropylene giving excellent breathability, whilst maintaining the Type 5/6 level of protection.



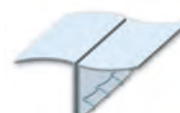
SMMMS back-panel.



Microporous laminate fabric.

#### Seam Technology

Seams are serged for Type 5/6 and certain seams bound for extra protection.





# 3M™ Protective Apparel

## 3M™ Protective Coverall 4540+



With premium dual material technology and offering CE Category III, Type 5/6 protection, the 3M™ Protective Coverall 4540+ is ideal for applications where both high levels of protective performance and comfort are desired.

### Typical Applications

#### Popular Choice

- Paint spraying & powder coating
- Coating & resin applications
- Light industrial cleaning
- Machine maintenance

#### Suitable for Consideration

- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing and handling toxic powders

### Features and Benefits:

- Excellent barrier against dry particles and certain liquid chemical splash (CE Type 5/6)
- Soft and light, super low-linting laminated microporous material that drapes and hangs well over the body facilitating ease of movement
- Back panel made of breathable SMMMS material for improved air circulation and reduced heat stress
- 2-way zipper with fully sealable storm flap for added on-off convenience and extra protection
- 3-panel hood design for enhanced compatibility with complimentary PPE
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- Enhanced and reinforced triangular gusset panel to increase product durability
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Low linting



### 3M™ Protective Coverall 4540+ Type 5/6

Colour: White with blue back panel

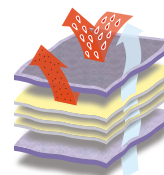
CE Category III

Sizes: S-4XL

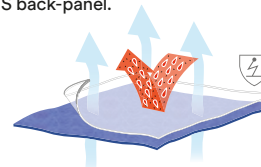


#### Fabric Material

The front of the 3M protective coverall 4540+ combines a high quality polyethylene laminate providing an excellent barrier, on top of a layer of soft, spunbond polypropylene fibres creating a robust, yet comfortable 55gsm protective fabric. The blue back panel is made from 5 layers of spunbond and meltblown polypropylene giving excellent breathability, whilst maintaining the Type 5/6 level of protection.



SMMMS back-panel.



Microporous laminate fabric.

#### Seam Technology

Seams are serged for Type 5/6 and certain seams bound for extra protection.



# 3M™ Protective Apparel

## 3M™ Protective Coverall 4545



The 3M™ Protective Coverall 4545 is designed to be comfortable, but highly protective certified to PPE Directive Category III, Type 5/6.

Designed like the 3M™ Protective Coverall 4540+ and using the same material as a single laminate suit, it is certified to protect against biological agents, radioactive particulates and is super low-linting, making it suitable for a wide range of applications including many cleanrooms.

### Typical Applications

#### Popular Choice

- Light industrial cleaning
- Machine maintenance
- Paint spraying & powder coating
- Coating & resin applications
- Cleanrooms
- Forensics

#### Suitable for Consideration

- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing and handling toxic powders
- Metallurgy

### Features and Benefits:

- Excellent barrier against dry particles and certain limited liquid chemical splash (CE Type 5/6)
- Biological protection tested to EN 14126
- Soft, well-draping, laminated microporous material
- 3-panel hood design for enhanced compatibility with complimentary PPE
- 2-way zipper with sealable storm flap for added on-off convenience and extra protection
- Knitted cuffs with elasticated waist and ankles for increased comfort and freedom of movement
- Enhanced and reinforced triangular gusset panel to increase product durability
- Super low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Supplied in space saving vacuum packaging



### 3M™ Protective Coverall 4545 Type 5/6

Colour: White

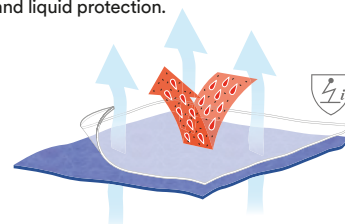
CE Category III

Size: S-4XL



### Fabric Material

The 3M protective coverall 4545. It is up to 20% lighter than previous 3M polyethylene laminate materials and is made from a 55gsm polypropylene and polyethylene laminate materials. It uses anti-static composite layer of soft, spunbond fibres and a layer of light, but high quality polyethylene laminate film, giving excellent levels of barrier efficiency and liquid protection.



### Seam Technology

Seams are serged for Type 5/6 and certain seams bound for extra protection.



# 3M™ Protective Apparel

## 3M™ Protective Coverall 4565



Offering CE Category III, Type 4/5/6 protection, the 3M™ Protective Coverall 4565 has an impressive level of liquid barrier protection whilst maintaining its unique soft feel and well-fitting drape. With tape applied over the seams a greater level of total protection and seam durability is offered versus Type 5/6 products.

### Typical Applications

#### Popular Choice

- Asbestos removal
- Pharmaceutical processing
- Handling toxic powders
- Cleanrooms
- Pesticide spraying

#### Suitable for Consideration

- Asbestos inspection
- Site preparation, insulation
- Cement manufacturing
- Grinding & polishing
- Industrial cleaning and maintenance
- Painting & coating, resins

### Features and Benefits:

- Excellent barrier against dry particles, liquid certain chemical splash and spray (CE Type 4/5/6)
- Taped seams across the suit for better protection and increased durability
- Soft, well-draping laminated material
- Biological protection tested to EN 14126
- 2-way zipper with fully sealable storm flap for added on-off convenience and extra protection
- 3-panel hood design for enhanced compatibility with complimentary PPE
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- Anti-static treatment to EN 1149 to reduce charge build up
- Super low-linting
- Supplied in space saving vacuum packaging
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles

#### CE Type 4:

Testing to Type 4 standards requires the coverall material to be put through additional testing. A whole body suit test is conducted with a higher volume of liquid than the equivalent Type 6 test. More importantly, the material and the seams have permeation tests conducted with a minimum of one chemical to assess whether the chemical/s can get through the material at a molecular level. The construction of the laminate used in the 3M protective coverall 4565 offers a superior performance in this area compared to many other Type 4 products.



### 3M™ Protective Coverall 4565 Type 4/5/6

Colour: White with red taped seams

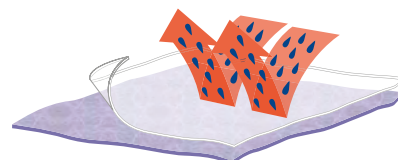
CE Category III

Sizes: S-4XL



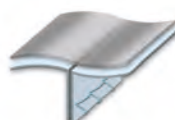
#### Fabric Material

20% lighter than previous 3M polyethylene laminate materials, the 3M protective coverall 4565 combines a composite base of nonwoven fibres and a polyethylene film giving good barrier efficiency against many hazardous liquids. The laminate is also ultra-low linting and anti-static treated making it suitable for a wide variety of potentially hazardous applications.



#### Seam Technology

Seams are stitched and overtaped with a red protective tape to offer increased seam strength and an effective barrier to liquids and particulates.





# 3M™ Protective Apparel

## 3M™ Protective Coverall 4570



The 3M™ Protective Coverall 4570 is a high performance chemical protective suit, certified to PPE Directive Category III, Type 3/4/5/6 levels of protection, making it suitable to protect against a range of chemical jets and sprays. With additional design features including an enlarged zip and finger loops, a double-closing storm flap system and chin flap, convenience of use can be offered without compromising the high level of protection given.

### Typical Applications

#### Popular Choice

- Chemical mixing and handling
- Chemical/oil spills and clean up
- Metal Refining
- Metal Etching
- Hazardous waste remediation
- Decontamination/Site Decommissioning
- Tank cleaning
- Infective agents/Biological Hazards
- Handling Toxic Powders

#### Suitable for Consideration

- Light industrial cleaning
- Machine maintenance
- Pharmaceutical processing
- Handling toxic powders
- Resin applications

### Features and Benefits:

- Excellent barrier for jet spray and liquid tight chemical protection (CE Type 3/4)
- Biological / infective agent protection (EN 14126) to the maximum class
- Seams are taped with a multi layer coextruded clear tape, giving a discreet finish and a consistent seal and barrier
- 3-panel hood design for enhanced compatibility with complimentary PPE
- Two stormflaps combined with double colour coded zips to create a double seal for added convenience and extra protection
- Larger easy grab ring pulls for ease of use
- Elasticated cuffs with thumb loops for secure fit during overhead work
- Elasticated waist and ankles for increased comfort and freedom of movement
- Glued in waist elastic and seam free shoulders to minimise entry points for confidence of wearer
- Adhesive chin flap
- Super low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles



### 3M™ Protective Coverall 4570 Type 3/4/5/6

Colour: Grey

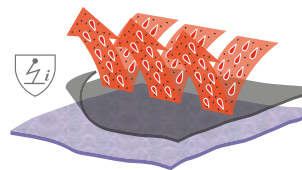
CE Category III

Size: S-4XL



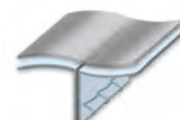
### Fabric Material

The 3M protective coverall 4570 uses a heavy-duty material blending a soft inner layer of spun bond fibres with layers of a high performance anti-static treated polyethylene laminate, to offer a high level of liquid protection.



### Seam Technology

Seams are stitched and overtaped with a clear heat applied multi-layer chemically protective tape to offer increased strength and an effective barrier to liquids and particulates.



For technical information and chemical permeation data, please request a Technical Datasheet.

## Accessories

From head to toe, we've got you covered with a full range of add-on options to give your workers the body protection they need.

### Coats

#### 3M™ Lab Coat 4440

- Made of the same laminated material as the Type 5/6 3M Protective Coverall 4535
- Anti-static treated
- Knitted cuffs
- Zip fastener
- Available in white



#### 3M™ Visitor Coat 4400

- Made of the same material as the 3M Coverall 4500
- 100% soft, breathable and lightweight polypropylene
- Zip fastener
- Internal pocket
- Available in white



### Overboots

#### 3M™ Overboot 450



Slip Resistant Sole

#### 3M™ Overboot 440



Standard Sole

- Elastic at the calf
- 3M Overboot 440 16inch length with ties for good fit
- 3M Overboot is available in standard 16inch or 11.5inch length, both models with ties
- Made of the same laminated material as the Type 5/6 3M™ Protective Coverall 4535
- 3M Overboot 450 has a PVC sole to help reduce the risk of slipping
- Laminated material ties to minimise particle shed and contamination in particle restricted environments such as cleanrooms

### Overshoes

#### 3M™ Overshoe 442



- Made of the same laminated material used in the Type 5/6 3M™ Protective Coverall 4535
- Elastic at ankle
- Anti-static treated

#### 3M™ Overshoe 402



- General non-hazardous substance protection
- Sole has printed pattern to help reduce the risk of slipping
- Elastic at ankle

### Oversleeves

#### 3M™ Oversleeve 444



- Made of the same laminated material as the Type 5/6 3M Protective Coverall 4510
- 16 inch length covering wrist to top of arm
- Elastic finish on top end for secure fit
- Anti-static treated

### Head Wear

#### 3M™ Overhood 446

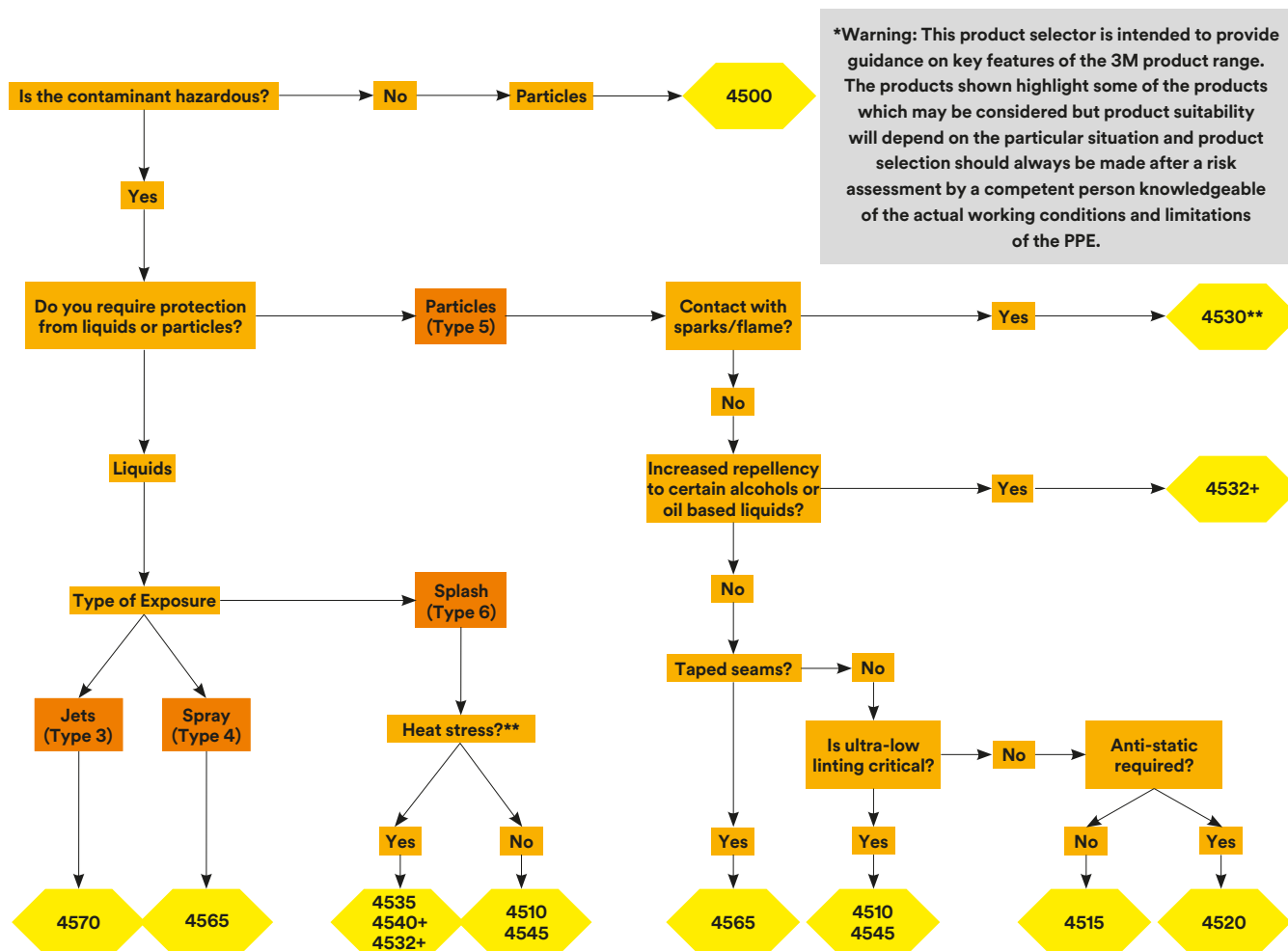


- Made of the same microporous laminated material as the Type 5/6 3M™ Protective Coverall 4510
- Anti-static treated
- Drapes over the shoulders offering excellent coverage



# 3M™ Protective Apparel

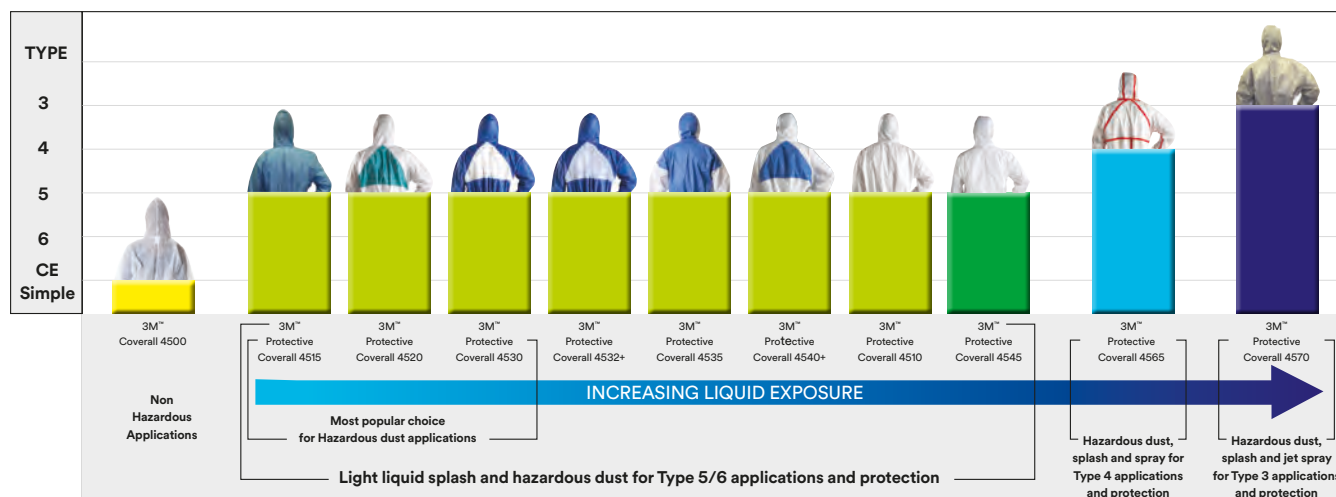
## Product selector diagram\*



\*\*Not suitable for flame protection, to be used in conjunction with an Index 2/3 garment only

\*\*\* For more information on the breathability of the 3M protective coveralls line, see the technical bulletin on breathability and our coveralls RET performance

## 3M™ Protective Coveralls Protection Types



This guide is only an outline. It should not be used as the only means for selecting protective clothing. Always read and follow all user instructions supplied with your 3M™ Protective Coveralls in order to ensure correct operation. Final determination as to the suitability of these products for a particular situation is the employers responsibility. If in doubt contact a safety professional. For further information on the performance data of these garments or for any other questions contact your local 3M representative. 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 PSD products, or the user's inability to use such products.

# 3M™ Protective Apparel

## Product selector table\*

Visit 3M Chemical Test library at <http://go.3M.com/CHTL> to review the chemical protective properties of the fabrics used in our range and see which 3M™ Protective Apparel solution could best meet your needs.



	3M	4500	4510	4515	4520	4530	4532+	4535	4540+	4545	4565	4570
		Category 1	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3
CE Certification**												
Material Weight (laminate)		45gsm	55gsm	50gsm	43gsm	54gsm	52gsm	55gsm		55gsm	55gsm	92gsm
Material Weight (back panel)								43gsm	43gsm			
Size		S-4XL	S-4XL	S-4XL	S-4XL	S-4XL	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			●	●	●	●	●	●	●	●	●	
Cement manufacturing, metal grinding & polishing			●	●	●	●	●	●	●	●	●	
Light industrial cleaning, machine maintenance			●	●	●	●	●	●	●	●	●	
Pharmaceutical processing, handling toxic powders			●		●	●	●	●	●	●	●	
Painting & coating, resins			●				●	●	●	●	●	
Cleanrooms			●							●	●	
Pesticide spraying											●	●
Chemical mixing and handling											●	●
Chemical spills, emergency response, decontamination, tank cleaning												●

● Popular choice ● Suitable for consideration

\* In all cases, product selection should be based on a full risk assessment. 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. This guide is only an outline. It should not be used as the only means for selecting protective clothing. Details regarding performance and limitations are set out on the packaging and user instructions. 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 or 3M – [www.3M.eu/safety](http://www.3M.eu/safety). Always check the compatibility of the suit material before selection. Please note that the personal protective equipment (PPE) shown highlight some of the products which may be considered. Sections of the most appropriate PPE will depend on the particular situation and should be made only by a competent person knowledgeable of the actual working conditions and the limitations of PPE.

\*\* See user instructions or technical datasheets for full details.

\*\*\*Material meets standard requirements.

**3M Belgium BVBA / SPRL**  
Hermeslaan 7  
1831 Diegem  
België / Belgique  
E-mail: 3Msafety.be@mmm.com  
www.3Msafety.be

**3M Danmark**  
Hannemanns Allé 53  
2300 København S  
Danmark  
E-mail: 3Msikkerhed@mmm.com  
www.3Msikkerhed.dk

**3M Deutschland GmbH**  
Carl-Schurz-Straße 1  
D - 41453 Neuss  
Deutschland  
E-mail: arbeitsschutz.de@mmm.com  
www.3Marbeitsschutz.de

**3M España, S.A.**  
Juan Ignacio Luca de Tena, 19-25  
28027 Madrid  
España  
E-mail: ohes.es@3M.com  
www.3M.com/es/seguridad

**3M France**  
Boulevard de l'Oise  
95006 Cergy Pontoise Cedex  
France  
www.3M.com/fr/securite

**3M Greece**  
3M Ελλάς Μ.Ε.Π.Ε.  
Κηφισίας 20  
15125, Μαρούσι  
Ελλάς  
www.3M.com/gr/occsafety

**3M Ireland Limited**  
The Iveagh Building  
The Park, Carrickmines  
Dublin 18  
Ireland  
E-mail: ohes.helpline.uk@mmm.com  
www.3M.co.uk/safety

**3M Italia srl**  
Via Norberto Bobbio, 21  
20096 Pioltello MI  
Italia  
E-mail: 3Msicurezza@mmm.com  
www.3Msicurezza.it

**3M Nederland B.V.**  
Molengraaffsingel 29  
2629 JD Delft  
Nederland  
E-mail: 3Msafety.nl@mmm.com  
www.3Msafety.nl

**3M Norge A/S**  
Postboks 100, 2026 Skjetten  
Norge  
E-mail: kundeservice@mmm.com  
www.3M.no/vern

**3M Österreich GmbH**  
Kranichberggasse 4  
1120 Wien  
Österreich  
www.3M.com/at/arbeitsschutz

**3M Portugal**  
Rua do Conde Redondo, 98  
1169-009 Lisboa  
Portugal  
www.3M.com/pt/segurança

**3M Suisse S.a r.l. / Schweiz GmbH**  
Eggstrasse 93  
8803 Rüschlikon  
Suisse / Schweiz  
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**Suomen 3M Oy**  
Keilaranta 6  
02150 Espoo  
Suomi  
www.3M.fi/suojaimet

**3M Svenska AB**  
191 89 Sollentuna  
Sverige  
E-mail: kundservice@mmm.com  
www.3M.se/personskyyd

**3M United Kingdom PLC**  
3M Centre  
Cain Road  
Bracknell  
RG12 8HT  
United Kingdom  
E-mail: ohes.helpline.uk@mmm.com  
www.3M.co.uk/safety

## **3M Personal Safety Division**

**EMEA Region**  
3M Centre, Cain Road  
Bracknell, Berkshire, RG12 8HT  
United Kingdom  
Office: +44 (0)1344 858000  
www.3M.eu/PPESafety

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