

Science has the power to change the world, solve the toughest problems and shape the future. But science is just science, until you apply it to something.

Make it do something, change something. No one knows this better than 3M.

The average person uses 3M science many times a day and doesn't even know it.

But it is everywhere, supporting 46 separate technology platforms and continuously driving our innovations.

No other company uses science like we do.

That's 3M Science. Applied to life.™

At 3M we have a select and high quality range of Coveralls, which provide protection against many hazards.

The 3M range of 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.

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## Who we are

## **Our vision**

# 3M Technology Advancing Every Company 3M Products Enhancing Every Home 3M Innovation Improving Every Life

## Our strengths



It starts with technology. And it is not just that we have technology; it's how we share, combine, and leverage technology across the company to produce unique products to solve the challenges our customers face.



Our manufacturing footprint and capability in many key areas allows us to produce higher performing products at lower costs, so we can help our customers keep their costs down.



Finally, the 3M brand and other strategic brands form the basis of the promise we offer our customers in terms of quality and performance of 3M products.



Our global presence isn't just about selling; we develop, adapt and manufacture products around the world as well. So we can meet customer needs on a local, regional, and global basis.



# **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.

## **Protection Types**

Depending on the materials and construction protective coveralls can be designed for either hazardous applications or nonhazardous applications. Products for hazardous applications can be tested and certified to any of six different "Type" standards providing guidance on suitability of use:

Symbol	Protection Type	Standard	3M Products
	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, 4540+,
	6 – Liquid Splash Protection	EN 13034 + A1	- 4535, 4532+, 4520, 4515, 4510
(E	CE Simple		50425

## **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)
4,	Anti-static (EN 1149-5:2008)
ISO 15025 / ISO 14116	Limited Flame Spread Resistance
$\triangle$	Where added to the above symbols please refer to the appropriate user instructions for further information on the compliance of this product

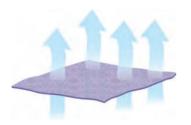


# **Materials**

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.



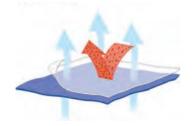
## Spunbond-Meltblown Polypropylene (SMS)

'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, as 3M's Protective Coverall 4532+, an enhanced level of splash protection can be achieved.



## **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 hold.





## **Design Features**

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



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 as CE 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

Sizes: M-3XL





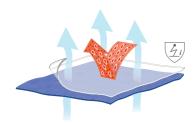






#### Fabric material

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 anti-static treated 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.



#### 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, red and orange, the range is certified as CE Type 5/6 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

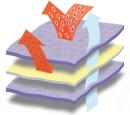


# Colour: White, blue and orange





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.



Seams are serged for Type 5/6 protection.



Made using the latest lightweight, breathable material technology 3M presents the 3M™ Protective Coverall 4520, a 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 sealable tab on 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



With 3 layers of melt-blown polypropylene polypropylene, the 3M protective coverall 4520 fabric has been specifically designed to improve air flow and breathabilty, 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



#### Seam Technology

Seams are serged for Type 5/6 protection.



# 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 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

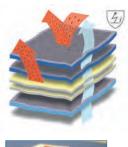
 Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles

- Low linting
- Available in blue (with a light blue triangle back panel) and Cool white



#### **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<sup>™</sup> 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 as CE Type 5/6 protection, it utilises a dual material design with added comfort features 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

Sizes: M-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 55gsm 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 Coverall 4540+

With premium dual material technology and offering CE Type 5/6 protection, the 3M<sup>™</sup> 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 compatability 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 EN1073-2 for protection against nuclear particles
- Low linting















#### Fabric Material

The 3M protective coverall 4540+ material is made using a composite layer of soft, spunbond fibres and a layer of light, but high quality polyethylene laminate film giving excellent levels of barrier efficiency and protection. Compared with many other laminates it has a particularly soft feel and drapes well over the body 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.



Offering CE 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 wellfitting 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:**

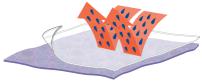
- Excellent barrier against dry particles, liquid certain chemical splash and spray (CE Type 4/5/6)
- Taped seams across the suit for better protection and increased durability
- Soft, well-draping laminated material
- Biological protection tested to EN 14126
- 2-way zipper with fully sealable storm flap for added on-off convenience and extra protection
- 3-panel hood design for enhanced compatability 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:

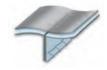
Testing to Type 4 standards requires the coverall material to be put through additional testing. A whole body suit test is conducted with a higher volume of liquid than the equivalent Type 6 test. More importantly, the material and the seams have permeation tests conducted with a minimum of one chemical 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.



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.



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



The 3M™ Protective Coverall 4570 is a high performance chemical protective suit, certified to 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 colourcoded zips to create a double seal for added convenience and extra protection
- Large zip 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 etc
- 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





permeation data, please request a Technical Datasheet.



3M™ Protective Coverall 4570 Type 3/4/5/6 Colour: Grev

Size: M-3XL







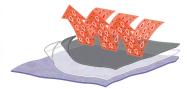






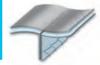
#### **Fabric Material**

The 3M™ Protective Coverall 4570 uses a heavyduty material blending a soft inner layer of spun bond fibres with multiple outer 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.



# 3M™ Reusable Coverall 50425



The 3M<sup>™</sup> Reusable Coverall 50425 provides user and garment protection in a wide variety of environments and situations. Extremely comfortable, it is made from a lightweight, breathable polyester.

The coverall has wide leg openings with adjustable hook and loop straps around the ankle, making it easy to put on and remove, even when wearing boots.

## **Typical Applications**

- Paint spraying (water based paint, non-hazardous)
- Dusting, sanding and polishing
- · General body and mechanical work and preparation
- Cleaning and area

## **Features and Benefits:**

- Two-piece hood with toggle for head protection & adjustable fit
- Robust, two-way zipper covered by a protective stormflap. Storm flap has hook & loop fasteners for a secure yet reusable closure
- Knitted cuffs for secure yet comfortable fit
- Three pockets, two on the front and one on
- Hook & Loop fasteners on ankles for an adjustable encapsulating fit
- Triangle acts as a vented back panel for extra comfort & reduced heat stress
- Front pockets provide easy two-way access to the wearer's clothes and pockets beneath the coverall
- Integrated knee pads offer users both added comfort and protection when working in a kneeling position
- Robust 67gsm material
- Anti-static treated material to prevent nuisance discharges
- Low-linting
- CE simple, suitable for non hazardous jobs such as spray painting with water based
- Available in grey with a blue triangular back panel
- Available in sizes Medium to 2XL



Kneepads







The 3M reusable coverall 50245 is made from a breathable, comfortable yet robust polyester material. The woven fibres offerstrength whilst the antistatic treatment minimises static discharge



Seams are serged.



# **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.

## **Overboots**

#### 3M™ Overboot 450



Slip Resistant Sole

- Elastic at the calf
- Universal size with ties to help provide a good fit
- 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

#### 3M™ Overhood 446

**Head Wear** 



- 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™ Mob Cap 407



- Hygiene protection preventing contamination from hair in the working environment
- Universal size
- Made from soft and breathable polypropylene

## **Overshoes**

#### 3M™ Overshoe 442



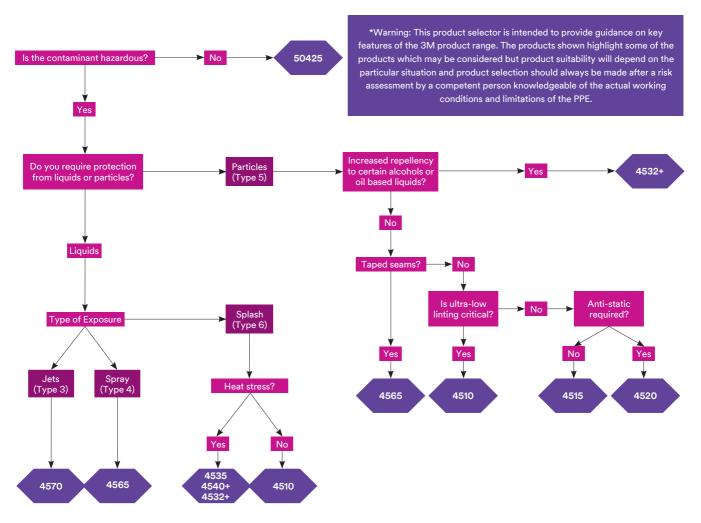
- Made of the same laminated material used in the Type 5/6 3M™ Protective Coverall 4535
- Elastic at ankle
- Anti-static treated

#### 3M™ Overshoe 402



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

# Product selector diagram\*



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

## 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, 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.

# **Product selector table\***

3M	50425	4510	4515	4520	4532+	4535	4540+	4565	4570
CE Certification**	Œ								
Material Weight	45gsm M-2XL	47gsm M-3XL	50gsm M-3XL	43gsm M-3XL	52gsm M-3XL	55gsm M-3XL	49gsm M-3XL	49gsm M-3XL	92gsm M-3XL
Colours	Å			Å	Å	Å	Å	Å	Å
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. 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 knowledgable of the actual working conditions and the limitations of PPE.

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

\*\*\* Material meets standard requirements.



# For more information about 3M Safety products or solutions please contact your 3M representative or:

Australia New Zealand

TechAssist Helpline 1800 024 464 Customer Service 1300 363 565

Website www.3m.com.au/PPESafety

Tech Helpline Customer Service Website

stomer Service 0800 252 627

www.3m.co.nz/PPESafety

0800 364 357

