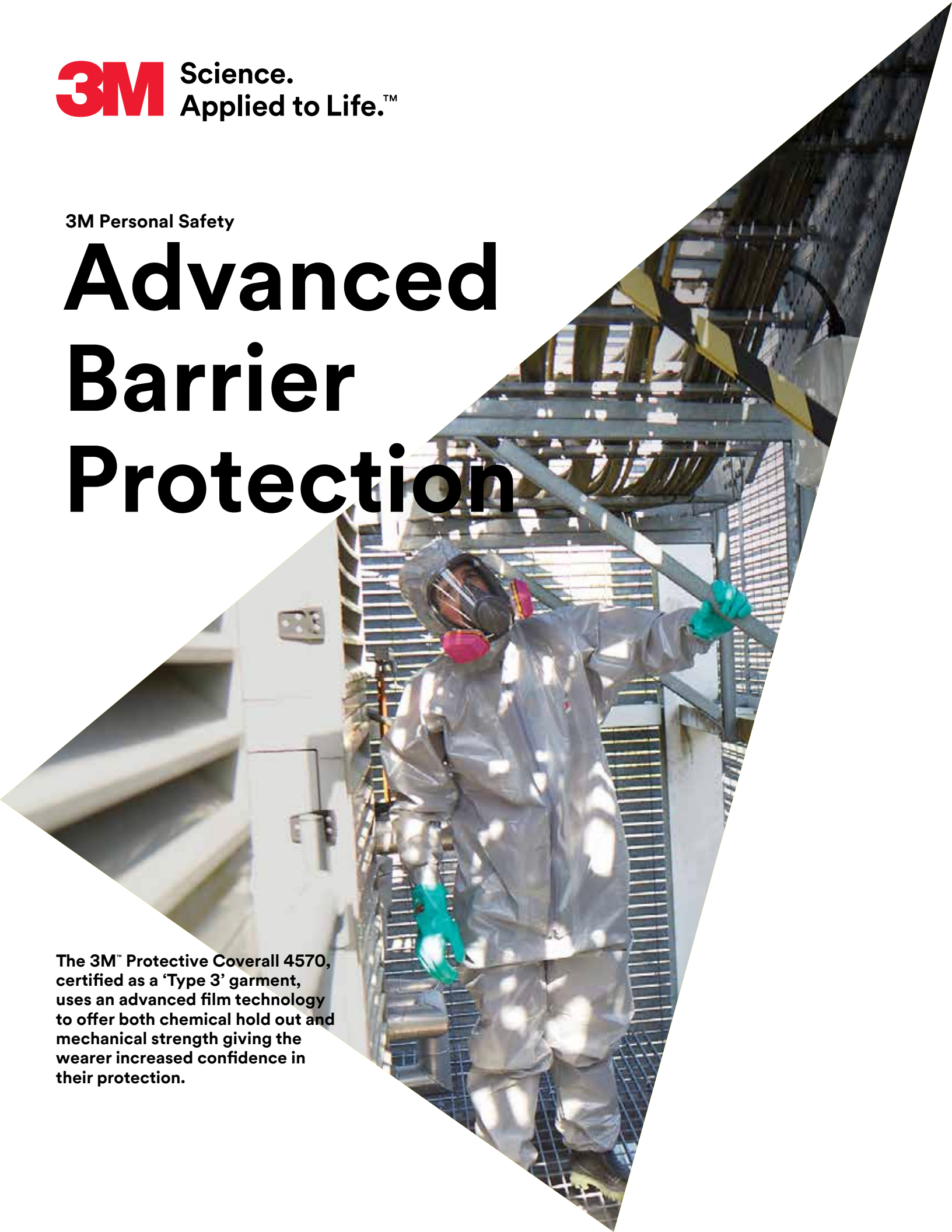


3M Science.
Applied to Life.™

3M Personal Safety

Advanced Barrier Protection

The 3M™ Protective Coverall 4570, certified as a 'Type 3' garment, uses an advanced film technology to offer both chemical hold out and mechanical strength giving the wearer increased confidence in their protection.



3M™ Protective Coverall 4570



The 3M protective coverall 4570 is a chemical protective suit, certified to Type 3/4/5/6 levels of protection, making it suitable to help protect against a range of chemical jets and sprays. With additional design features including an enlarged zip and thumb loops, an integrated double-closing stormflap system and chin flap, convenience of use can be offered without compromising the level of protection offered.



Key Features

- Advanced film technology
- Soft material reducing noise from movement
- High levels of chemical hold out and mechanical strength
- Certified to offer protection against radioactive particulates (EN 1073-2) and (EN 14126)
- Achieves highest class performance on all tests in EN 14126 and meets ASTM F1670/F1671
- Anti-static treated (inside only) to EN 1149
- Seams are taped with a multi layer co-extruded clear tape, which offers a discreet finish and a consistent seal and barrier to hazardous dusts and high pressure liquid jets
- Thumb loops for secure fit during overhead work
- Three-panel hood design with chin flap for a better fit and compatibility with other PPE
- Two stormflaps combined with double color-coded zips to create a double seal for added convenience and extra protection
- Large ring-pull zippers for easy donning and doffing when wearing gloves
- Elastic waist is adhered with glue to minimize potential entry points
- Elasticated wrists and ankles for convenience and freedom of movement
- Available in 7 sizes, Small - 4XL

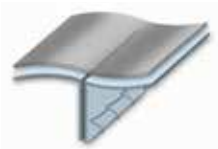
Fabric material

The 3M protective coverall 4570 uses a 92gsm heavy-duty material blending a soft anti-static treated inner layer of spun bond fibres with multiple outer layers of a high performance polyethylene laminate, to offer liquid protection.



Seam Technology

Seams are stitched and overtaped with a clear heat applied 5-layer chemically protective tape to offer increased strength and an effective barrier to liquids and particulates.



Typical Applications*

Suggested

- 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

Acceptable Alternative

- Pesticide spraying
- Pharmaceutical Processing

*PPE selection should be: based on risk assessment by a competent person; with knowledge of the working conditions; with knowledge of the limitations of PPE. Customers should contact a safety professional if in doubt.

Interpreting the permeation data

EN14325 Classification	
Class 6	>480 mins
Class 5	>240 mins
Class 4	>120 mins
Class 3	>60 mins
Class 2	>30 mins
Class 1	>10 mins

The test methods referenced in the 3M protective coverall 4570 Fabric and Seam Permeation Data table on the following page are EN 374 and ASTM F-739. EN 374 reports the breakthrough detection time at a permeation rate of $1.0 \mu\text{g}/\text{cm}^2$ and refers to the EN 14325 classification in the adjacent table. ASTM F-739 reports the normalized breakthrough detection time at a permeation rate of $0.1 \mu\text{g}/\text{cm}^2$. You can also find both of the normalized permeation rates of $0.1 \mu\text{g}/\text{cm}^2$ and $1.0 \mu\text{g}/\text{cm}^2$ reported in EN ISO 6529.



Type 3 EN 14605: 2005 +A1: 2009
Protective performance against liquid chemicals



Type 4 EN 14605: 2005 +A1: 2009
Protective performance against liquid chemicals



Type 5
EN ISO 13982-1: 2004
Protective clothing for use against solid particulates



Type 6 EN 13034: 2005 +A1: 2009
Protective clothing against liquid chemicals



Type 3-B, 4-B, 5-B, 6-B
EN 14126: 2003
ASTM F1671:2013
Biohazard



EN 1073-2:2002
TIL Class 2
Protection against nuclear particles



EN 1149-1: 2006
EN 1149-5: 2008
Anti-static

3M™ Protective Coverall 4570 Fabric and Seam Permeation Data

Chemical	Fabric			Seam	
	CAS Number	EN374-3 classified to EN14325	ASTM F739 Breakthrough time	EN374-3 classified to EN14325	ASTM F739 Breakthrough time
		1µg/cm ²	0.1µg/cm ²	1µg/cm ²	0.1µg/cm ²
2-(2-aminoethoxy) ethanol 98%	929-06-6	Class 6	Not Tested	Class 6	>480 mins
2,4-Difluoroaniline 99%	367-25-9	Class 3	Not Tested	Class 1	Immediate
2-Chloroethanol 99%	107-07-3	Class 6	Not Tested	Class 6	Immediate
2-Ethylhexanoic Acid 99%	149-57-5	Class 6	Not Tested	Class 6	average 102 mins
Acetic Acid 30% (ethanoic acid)	64-19-7	Class 6	Not Tested	Class 6	>480 mins
Acetone	67-64-1	Not Tested	Immediate	Not Tested	Immediate
Acetonitrile	75-05-8	Not Tested	Immediate	Not Tested	Immediate
Ammonium Hydroxide 30%	1336-21-6	Class 6	Not Tested	Class 1	Immediate
Aniline 99% (phenylamine, aminobenzene)	62-53-3	Class 5	Not Tested	Class 5	average 11 mins
Carbon Disulfide	75-15-0	Not Tested	Immediate	Not Tested	Immediate
Dichloro-methane	75-09-2	Not Tested	Immediate	Not Tested	Immediate
Diethylamine	109-89-7	Not Tested	Immediate	Not Tested	Immediate
Dimethyl-formamide	68-12-2	Not Tested	Immediate	Not Tested	Immediate
Dimethyl Sulphate 98%	77-78-1	Class 6	Not Tested	Class 6	>480 mins
Ethyl Acetate	141-78-6	Not Tested	Immediate	Not Tested	1 min
Ethylene Glycol 99.5%	107-21-1	Class 6	Not Tested	Class 6	>480 mins
Formaldehyde 10%	50-00-00	Class 6	Not Tested	Class 6	>480 mins
Formic Acid 96%	64-18-6	Class 6	Not Tested	Class 6	average 16 mins
Hydrazine Monohydrate 98%	7803-57-8	Class 6	Not Tested	Class 6	>480 mins
Hydrobromic Acid 48%	10035-10-6	Class 6	Not Tested	Class 6	>480 mins
Hydrochloric Acid 37%	7647-01-0	Class 4	Not Tested	Class 4	average 36 mins
Hydrofluoric Acid (71-75wt%)	7664-39-3	Class 4	Not Tested	Class 5	average 132 mins
Hydrofluoric Acid 48%	7664-39-3	Class 6	Not Tested	Class 6	>480 mins
Isopropyl alcohol 99.5%	67-63-07	Class 6	Not Tested	Class 6	average 9 mins
Mercuric Chloride sat. soln.	7487-94-7	Class 6	Not Tested	Class 6	>480 mins
Mercury	92786-62-4	Class 6	Not Tested	Class 6	>480 mins
Methanol	67-56-1	Class 2	Immediate	Class 6	Immediate
n-Hexane	110-54-3	Not Tested	Immediate	Not Tested	Immediate
Nitric Acid 70%	7694-37-2	Class 6	Not Tested	Class 6	average 420 mins
Nitrobenzene	98-95-3	Not Tested	Immediate	Not Tested	Immediate
Phenol 85% soln.	108-95-2	Class 6	Not Tested	Class 6	>480 mins
Phosphoric Acid 85%	7664-38-2	Class 6	Not Tested	Class 6	>480 mins
Potassium Chromate (saturated soln.)	7789-00-6	Class 6	Not Tested	Class 6	>480 mins
Sodium Bisulphate 40% soln.	7681-38-1	Class 6	Not Tested	Class 6	>480 mins
Sodium Fluoride Saturated soln.	7681-49-4	Class 6	Not Tested	Class 6	>480 mins
Sodium Hydroxide 40wt%	1310-73-2	Class 6	>480 mins	Class 6	>480 mins
Sodium Hypochlorite (13% chlorine)	7681-52-9	Class 6	Not Tested	Class 6	>480 mins
Sulfuric Acid 30wt%	7664-93-9	Class 6	Not Tested	Class 6	>480 mins
Sulfuric Acid 93.1 wt%	7664-93-9	Class 6	>480 mins	Class 6	>480 mins
Tetrachloro-ethylene	127-18-4	Not Tested	Immediate	Not Tested	Immediate
Tetra-hydrofuran	109-99-9	Not Tested	Immediate	Not Tested	Immediate
Toluene	108-88-3	Not Tested	Immediate	Not Tested	Immediate
Zinc Bromide Saturated soln.	7699-45-8	Class 6	Not Tested	Class 6	>480 mins

Contact 3M if you your chosen chemical does not appear in the table.

Data given here is: for information only; not certified product claims; based on one sample only; based on lab conditions; subject to change. Product supplied may show variation. Breakthrough times are not safe wear times. Permeation rates increase with temperature. Permeation testing does not assess: degradation; mechanical defects; product design/fit.

Important Notice

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

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

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Personal Safety Division
3M Center, Building 0235-2W-70
St. Paul, MN 55144-1000

**For more information:
In U.S.**

Technical Assistance 1-800-243-4630
Customer Care Center 1-800-328-1667
3M.com/PPESafety

In Canada

Technical Assistance 1-800-267-4414
Customer Care 1-800-364-3577
3M.ca/PPESafety

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