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DuPont F Product Cot

FOR GREATER GOOD **Protective Apparel** talogue

DuPont Protective Apparel: LEVELS OF PROTECTION TO MEET YOUR NEEDS



Not all garments are available in Australia and New Zealand

DEDICATED TO YOU – THE NEW PRODUCT CATALOGUE FROM DUPONT PERSONAL PROTECTION

Dedicated to safety Dedicated to innovation Dedicated to you...

Every day hundreds of DuPont engineers around the world are working hard to solve your problems. It's this strong customer focus that sets us apart and made us into one of the most trusted and respected brands in the field of personal protection.

At DuPont we are dedicated to providing high quality protective apparel. By listening to you, our customer, and responding to your needs, we work hard to maintain our position as a market leader in what we do best: designing and producing a comprehensive, exhaustively tested, and innovative range of quality single- and limited-use protective garments.

The right garment for you

Selecting the correct protective garment is rarely as simple as choosing from a table of options. There are many factors to consider and it is a careful analysis of these factors and their interrelationship that will determine the appropriate protection for a particular need. Every hazard scenario, every protection need and every single person is different so there is no one garment that is suitable for all circumstances. Which is why you will find such an extensive range of products and options in these pages.

Designed around your needs

In this new edition are some of the latest examples of our dedication to innovation and customer satisfaction. New materials, optimised designs and fit, and upgraded detailing are just some of the improvements you will find. In particular, we have been listening hard to your need for improved wearer comfort without compromising safety.



You are not alone...

If you need professional guidance on product selection and usage, or if you are setting up a worker protection programme, we are only a message or call away. We also have our free SafeSPEC[™]* selection aid – a user-friendly online tool which provides comprehensive information on the options available and assistance with the matching of protection to risk. And once you know what garments you require you won't have to go far to get what you need; our international dealer network provides local support and availability, all backed up by the global resources of DuPont.

Count on us

With our uncompromising standards and commitment to safety, performance and quality we look forward to continuing to offer innovative solutions that are dedicated to your needs.



*www.safespec.dupont.co.uk



THE 9-STEP GUIDE FROM DUPONT TO GARMENT SELECTION

To help select the right chemical protective clothing, DuPont proposes using a step-by-step guide. Using the simplified guide below as part of the risk assessment process – as well as the summary table for DuPont garments – can help facilitate the process of garment selection.



Step 1: Hazard identification

What is the chemical hazard? Is it gas, liquid, vapour or particle? Can the hazard change state during use (e.g. from liquid to vapour)? What are the levels of concentration, humidity, temperature and pressure? Are there any additional hazards e.g. risk of explosion, heat and flame, biological risk, etc.?



Step 2: Determine minimum levels of protection needed

When choosing protective clothing, take into account the nature of the exposure and identify the corresponding Type classification. Then examine the results obtained from both the whole suit Type, material and seam tests as indicated in themanufacturer's product documentation.



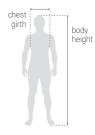
Step 3: Assess hazard toxicity

Knowing the toxicity or consequences of short or long-term exposure to the hazard is essential. Assess whether a suit that just passes a certain Type is sufficient protection.



Step 4: Determine protective performance requirements of the fabric and seam

Consider that liquid chemical penetration tests are conducted over a time period of just 60 seconds. In order to assess whether a fabric protects the wearer for longer exposure periods, the permeation data (gathered from tests lasting up to 8 hours) must be consulted.



Step 5: Determine mechanical performance requirements

An excellent barrier is only worthwhile if it withstands working conditions and remains intact for the duration of the task. In addition, selecting the right size is essential to ensuring proper protection. Avoid oversized or undersized suits, and ensure correct sizes are available. Please see instructions for use.

BODY MEASUREMENTS IN CM									
SIZE	CHEST GIRTH	BODY HEIGHT	SIZE	CHEST GIRTH	BODY HEIGHT	SIZE	CHEST GIRTH	BODY HEIGHT	
S	84-92	162-170	L	100-108	174-182	2XL	116-124	186-194	
Μ	92-100	168-176	XL	108-116	180-188	3XL	124-132	192-200	

Step 6: Comfort considerations

Protection is important, and so is comfort. Identifying the appropriate protective and mechanical performance, while also maximising wearer comfort, can contribute to wearer satisfaction and productivity.



ISO 14001 ISO 9001



IRY IT!



Protection, performance in use, and comfort are key criteria, as is a manufacturer's brand reputation for consistent quality. DuPont is ISO 9001 and ISO 14001 certified, and our protective coveralls and fabrics are manufactured with rigorous statistical quality controls that go beyond the minimum requirements.

Step 8: Identify the correct usage of the product

Be aware of product limitations, as these can be a useful source of information on the correct use of the product. They may also raise important questions, such as whether additional taping is required, whether grounding requirements should be considered, performance when exposed to temperatures, and whether a doffing procedure is required that necessitates training to avoid contamination.



Step 9: Wear test

Once you've made a safe selection, why not put the coverall to the test and evaluate its performance in use? Putting a product to the test via wear trials is a wise step in the selection process. DuPont offers a user wear trial program – try it!



DuPont offers a range of support tools to assist with risk assessment and garment selection: ranging from web-based tools and on-site risk assessment support with DuPont Personal Protection specialists and chemists, to chemical permeation barrier testing for your specific chemicals.



GARMENT SELECTION: A LIFE SAVING CHOICE

There are many different chemical protective suits commercially available, and although they are CE certified, there are very wide ranging performance differences for products meeting the same certification 'Types'. Faced with a bewildering choice and the complexity of the certification information, what criteria should be used to select the right protective clothing? A short summary of the European standards for chemical protective clothing and a chemical protective clothing selection guide is provided to assist you in this task.

CE Marking

To facilitate the choice of garment, the European Union has defined harmonised product standards for six levels of protection (referred to as 'Types') within Category III Chemical Protective Clothing (see table below). The certification of a suit to a particular protection type represents its overall tightness against a particular form of exposure (gas, pressurised liquids, sprays and dust). It should be noted that its certification does not necessarily mean that the suit is 100% impervious to this type of exposure. It only means that the suit meets the minimum requirements of the specific product standard. The manufacturer is also obliged to state the performance levels of the constituent materials and seams, known as performance 'Classes'.

	Chemical Protective Clothing, Category III							
Type and Pictogram*	Definition and Exposure Level	Product Standard and Year of publication						
TYPE 1 TYPE 1-ET	Gas-Tight TYPE 1 – Protective clothing against liquid and gaseous chemicals, including liquid aerosols and solid particles. TYPE 1 - ET – Performance requirements for emergency teams.	EN 943-1:2002** EN 943-2:2002						
TYPE 2	Non-Gas-Tight Protective clothing against liquid and gaseous chemicals, including liquid aerosols and solid particles.	EN 943-1:2002**						
TYPE 3	Liquid Tight Protective clothing against liquid chemicals. Exposure to pressurised jet of liquid.	EN 14605:2005/A1:2009						
TYPE 4	Spray Tight Protective clothing against liquid chemicals. Exposure to a liquid spray aerosol (unpressurised).	EN 14605:2005/A1:2009						
TYPE 5	Solid Particulates Protective clothing against solid-airborne particulates.	EN ISO 13982-1:2004/A1:2010						
TYPE 6	Limited protective performance against liquid chemicals Potential exposure to small quantities of fine spray/mist or accidental low volume splashes and where wearers are able to take timely adequate action in case of contamination.	EN 13034:2005/A1:2009						

* DuPont Pictogram.
** Amended in 2005.

	Other Relevant Standards							
Pictogram	Definition	Standard and Year*						
<u>4</u> **	Protective Clothing with Electrostatic properties – material performance and design requirements.	EN 1149-5:2008						
***	Protective clothing against radioactive contamination.	EN 1073-2 :2002						
	Protective Clothing with protection against heat and flame-Limited flame spread materials, material assemblies and clothing.							
	Three 'Index' (levels) of protection are defined Index $1/0/0 \rightarrow$ Index 1 performance, single use and no pre-cleaning or laundering. Index 1 materials limit the flame spread, but will melt and must always be worn on top of Index 2 or 3 garments.	EN ISO 14116:2008						
B	Protective clothing (fabrics) against infective agents (indicate by a 'B' e.g. Type 3-B) and comprising several fabric protection test methods.	EN 14126:2003						

* As standards are continuously revised the year of publication is subject to change.

** Antistatic treatments on DuPont Chemical Protective Clothing are only effective in relative humidity >25% and when the garment and wearer are continuously and correctly grounded. *** Does not protect against ionizing radiation.



TYVEK[®]

Tyvek[®] is a unique nonwoven fabric that comes with inherent protection that's engineered right in. Designed for an optimal balance of protection, durability and comfort, Tyvek[®] protective apparel is ideal for a wide range of jobs. From spray painting to handling lead or asbestos abatement, the ergonomic design helps keep workers safe and effective when the going gets rough. It is also devoid of fillers or additives and is silicon-free.

TYVEK® CLASSIC XPERT

TYPE 5-B

EN 1149

EN 1073-2* EN

Setting a new standard of protection in the Type 5 and 6 category through greater protection and comfort





Benefits

- ✓ High liquid and particulate protection
- ✓ Exceptional design and comfort
- Good breathability thanks to air and moisture vapour permeability
- Overall ergonomic shape for perfect fit and protection when moving

Features

Hooded coverall. Robust yet lightweight (<180 g per garment). 3-piece hood for optimal fit to head and face when turning. Elasticated face, wrists and ankles as well as glued-in waist elastic. Ample crotch area for freedom of movement. Large, easy-to-grasp zipper puller. Chemical permeation of coloured Tyvek® is not identical to that of white Tyvek®. Please refer to permeation data.

Applications

Applications for Tyvek[®] Classic Xpert garments include those found in pharmaceutical handling, chemical processing, the oil and gas industry, mining, general maintenance and operations, automatic spray painting and many others.

* Does not protect against ionizing radiation.

Tyvek[®] Classic Xpert

Size	SM	MD	LG	XL	2X	3X		
Part Number	0451 6264	0451 6366	0451 6468	0451 6565	0451 6660	0514 3254		
Carton Qty	100							



Tyvek[®] Safety Orange

Size	MD	LG	XL	2X	3X		
Part Number	0472 5616	0472 5599	0472 5650	0472 5667	0472 5684		
Carton Qty	50						



TYVEK® DUAL

Category III TYPE

EN 1149-5

EN 1073-2* Class 1

Protection and durability where it's needed, breathability where it's not





Benefits

- ✓ Tyvek[®] protection where you need it most
- Large breathable SMS back panel from head to ankle for increased comfort
- External stitched seams for enhanced protection against penetration from the outside to the inside of the garment

Features

Hooded coverall. 3-piece hood and gusset for optimal fit. Elasticated face, wrists, waist and ankles. The large, breathable back panel, made of SMS nonwoven, offers lower protection against particles (down to 3 microns in size) and light water-based splashes, yet high levels of comfort.

Applications

Tyvek[®] Dual is designed for specific applications that demand comfort while helping to provide protection from frontal exposure during brick ceramic firing, foundries and smelting operations, paint spraying or any work involving composite materials, glass manufacturing, and utilities.

* Does not protect from ionizing radiation.

Size	MD	LG	XL	2X	3X		
Part Number	0217 3611	0217 3628	0217 3645	0217 3662	0217 3679		
Carton Qty	100						



TYVEK® 800 J

TYPE 4 -B

TYPE 6 -B

Class 2

EN 14126

The new, breathable Type 3 garment for protection against water-based inorganic chemicals under pressure





Benefits

- An effective barrier against many low-concentration, water-based inorganic chemicals (even under pressure), small-sized hazardous particles as well as oil repellent
- ✓ Bright, over-taped seams aid wearer identification
- ✓ Soft and lightweight fabric that is permeable to both air and water vapour
- ✓ Ergonomic fit consistent with the shape and movement of the user

Features

Hooded coverall. Robust yet lightweight (<300 g per garment). Self-adhesive zipper flap. Self-adhesive chin flap for tight seal of suit to mask. Elasticated face, wrists and ankles as well as glued-in waist elastic. Thumb loops to prevent sleeves from riding up.

Applications

Applications for Tyvek® 800 J garments include those in very humid applications requiring chemical, liquid protection and/or oil repellency. Typical activities include industrial cleaning, mining, work at petrochemical installations, in sewers and maintenance operations.

*	Please see instructions for use for details.
* *	Does not protect against ionizing radiation.

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Size	MD	LG	XL	2X	3X
Part Number	0332 3593	0332 3610	0332 3627	0332 3644	0332 3661
Carton Qty			25		



EN ISO 20471 TYBE 5-B TYPE 6-

High visibility that doesn't washout





Benefits

- Compliant to the highest class of high visibility norm (EN 20471- Class 3/3)
- All in one solution: high visibility, chemical, biological & antistatic protections
- ✓ No washing, no monitoring, no hassle
- Replaces or protects your high visibility reusable coverall
- ✓ Ergonomic design
- Ideal solution for working environments such as rail, road, underground, ports / airports, mining, waste where high visibility standards are required for the workers' safety

Features

Designed for limited use only, Tyvek[®] 500 HV garments provide outstanding safety performance without the hassle of repeated washing and monitoring of its effect on colour.

Applications

Tyvek[®] 500 HV is the ideal solution when working in dangerous or dark environments and poor weather conditions. Indeed its bright fluorescent orange colour associated to silver grey reflective bands makes it highly visible during the day as well as in the night (when exposed to a light source). This combination of Tyvek[®] performance with the highest visibility standard makes it a major innovation in the field of disposable protective apparel.

* Does not protect from ionizing radiation.

Size	MD	LG	XL	2X	3X		
Part Number	0404 8354	0404 8371	0404 8388	0404 8405	0404 8422		
Carton Qty	25						





PROSHIELD® BASIC





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Based on an optimised SMS technology, ProShield® Basic is a breathable lightweight coverall for entry-level Type 5/6 protection





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Benefits

- ✓ Limited particle protection
- High comfort level: high air and water vapour permeability

Features

Hooded coverall. 2-piece hood. Elasticated face, wrists, waist and ankles. ProShield® Basic garments, made with SMS fabric, help combine low particle protection with high levels of comfort.

Applications

Ideal choice for workers seeking protection against dirt and grime in warm applications, general maintenance, hospitals and other industries.

* Does not protect from ionizing radiation.

ProShield® Basic White

Size	SM	MD	LG	XL	2X	3X		
Part Number	0000 5937	0401 9641	0401 9658	0401 9675	0401 9692	0401 9709		
Carton Qty	50							

ProShield[®] Basic Blue

Size	SM	MD	LG	XL	2X	3X		
Part Number	0000 5954	0413 1518	0413 1535	0413 1552	0413 1569	0413 1586		
Carton Qty		50						



PROSHIELD® 60

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76 YPE 6 E1

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EN 1073-2 Class 1

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Based on Microporous Film Laminate technology, ProShield[®] 60 offers high repellency to liquids





Benefits

- ✓ Good liquid repellency
- ✓ Medium durability
- ✓ Water vapour permeable

Features

Hooded coverall. 3-piece hood and 3-piece gusset for optimal fit. Elasticated face, wrists, waist and ankles.

Applications

ProShield[®] 60 garments are an ideal choice for applications that are less demanding in terms of barrier, durability and comfort, for example general maintenance, hospitals and other industries.spraying or any work involving composite materials, glass manufacturing, and utilities.

* Does not protect from ionizing radiation.

Product detail								
Size	MD	LG	XL	2X	3X			
Part Number	0401 9726	0401 9743	0401 9760	0401 9760	0401 9794			
Carton Qty			50					



PROSHIELD® FR

Category III TYPE 5

EN 1149-5

)73-2* EN ISO 14116**

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The solution to protect you and your flame-resistant workwear underneath





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Benefits

- ✓ Maximising wearer comfort: thanks to the open structure of its breathable non-woven SMS fabric
- ✓ Non-halogenated flame-retardant non-woven fabric, free of substances of very high concern to conform to reach compliance
- ✓ Antistatic treatment on both sides***

Features

Hooded coverall. 3-piece hood and 3-piece gusset for optimal fit. Elasticated face, wrists, waist and ankles. Generous fit offering high freedom of movement when wearing Index 2 or 3 flame-retardant workwear beneath.

Applications

ProShield[®] FR garments are used across a range of applications, including those in the petrochemical and railway industries, welding, gas and metal applications and certain Ex-Zones (refer to instructions for use).

Note:

An Index 1 garment should never be worn in direct contact to the skin, but on top of an Index 2 or Index 3 garment.

- * Does not protect from ionizing radiation.
- ** EN ISO 14116:2008 requires a tensile strength of >150 N. This garment has a tensile strength of >30 N only.
- *** Test conducted on certain FR fabrics and FR garments have demonstrated that antistatic properties reduce overtime. In the interests of safety, that's why we initially limit the shelf-life for the antistatic property of ProShield[®] FR to 18 months.

Size	MD	LG	XL	2X	3X	
Part Number	0292 3260	0292 3277	0292 3294	0292 3311	0292 3328	
Carton Qty	50					





TYCHEM®

Tychem[®] is an innovative fabric range comprising multiple barrier layers that help provide protection from chemicals (even those under pressure), biohazards and particulates. Tychem[®] 4000 C coveralls feature a coated Tyvek[®] fabric and provide barrier protection against numerous concentrated inorganic chemicals and biological hazards. New, Tychem[®] 4000 S garments utilise a film laminated to Tyvek[®] fabric to achieve a barrier to permeation by a range of highly concentrated inorganic and certain organic chemicals. Tychem[®] F2

garments, also comprising a film laminated to Tyvek[®], offer the broadest chemical barrier, helping to protect personnel against numerous toxic industrial organic chemicals, highly concentrated inorganic chemicals and chemical warfare agents.

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TYCHEM® C

Comfortable, lightweight protection against biohazards and inorganic chemicals





Benefits

- ✓ Protection against numerous concentrated inorganic chemicals and biohazards
- ✓ Protective seams, stitched and over-taped with barrier-tape, providing barrier performance equal to that of the fabric
- ✓ Double self-adhesive zipper flap offers high level of protection
- ✓ Option: Socks attached to the ankle, to be worn inside safety boots or shoes with additional knee-length boot flap to ensure a high protection level

Features

Hooded coverall. Elasticated face, wrists, waist and ankles for an optimal fit . Self-adhesive chin flap for tight seal of suit to face-masks.

Applications

Tychem[®] C is used for splash or pressurised splash protection in a variety of industrial environments, including pulp and paper manufacturing, food processing, chemical processing and pharmaceutical manufacturing.

* Does not protect against ionizing radiation.

Size	MD	LG	XL	2X	3X
Part Number	0472 5446	0466 9941	0472 5463	0472 480	0472 5497
Carton Qty	50				



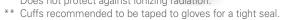
TYCHEM® 6000F

_{closure}

uff system

Comprehensive Tychem® F protection combined with even higher mechanical strength





Product detail

Size	MD	LG	XL	2X	3X
Part Number	0363 8909	0363 8926	0363 8943	0363 8960	0363 8977
Carton Qty	10				





Benefits

- ✓ Barrier of a Tychem[®] F fabric with higher mechanical strength
- Protective seams, stitched and over-taped with barrier-tape, providing barrier performance equal to that of the fabric
- ✓ Double zip and double flaps permit limited re-use if not contaminated
- ✓ Double cuff system for good glove compatibility**

Features

Hooded coverall. Elasticated face, wrists, waist and ankles for an optimal fit, including use of a comfort elastic at the wrists and face to avoid skin irritation. Self-adhesive flap for tight seal of suit to face-masks.

Applications

Tychem[®] F2 is used for splash or pressurised splash protection in a variety of demanding industrial environments, including pulp and paper manufacturing, shutdowns, chemical processing and pharmaceutical manufacturing. It can be used across a broad range of applications, from chemical spill clean-up, emergency response, to military and petrochemical applications.



DuPont[™] SafeSPEC[™]





Need help finding and selecting chemical protective clothing? Try DuPont[™] SafeSPEC[™]

Browse and compare products by brand, design or certification, with direct access to all relevant information including permeation data.

www.safespec.dupont.co.uk

DISCLAIMER

This information is based upon technical data that DuPont believes to be reliable. It is subject to revision as additional knowledge and experience becomes available. DuPont does not guarantee results and assumes no obligation or liability in connection with this information.

It is the user's responsibility to determine the level of toxicity and the proper personal protective equipment needed. This information is intended for use by persons having the technical expertise to undertake evaluation under their own specific end-use conditions, at their own discretion and risk.

Anyone intending to use this information should first check that the garment selected is suitable for the intended use. The end-user should discontinue use of garment if fabric becomes torn, worn or punctured, to avoid potential chemical exposure. Since conditions of use are beyond our control, we make no warranties, expressed or implied, including but not limited to warranties of merchantability or fitness for a particular purpose and assume no liability in connection with any use of this information.

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DuPont Protection Solutions

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