

PRODUCT LINE BY HAZARD

When it comes to addressing a broad range of hazards in the workplace, specifiers have many product options from which to select. The process to understand which option matches a given situation can be confusing and taxing. DuPont Personal Protection has tried to reduce some of that burden by providing a complete line of products with supporting information to help guide specifiers through the selection process.

To get the most out of your Personal Protective Equipment (PPE), it is necessary to understand where the products are intended to be used. DuPont™ SafeSPEC™ 2.0 is a sophisticated, easy-to-use interactive tool that provides suggestions for chemical protective clothing based on the user's hazard scenario.

Our database includes hundreds of chemicals, including warfare agents and the ASTM F1001 standard list of challenge chemicals. This tool can be accessed on our website at www.SafeSPEC.DuPont.com. To provide a quicker overview of our products and where they are ideally suited for use, we developed the simple guide below. Our goal was to match the level of protection and value for a given exposure hazard.



DuPont™ SafeSPEC™ 2.0

DUPONT™ TYVEK® AND GENERAL PROTECTION PRODUCTS

Garment	Typical general industrial hazards/Description/Examples																			
	Non-hazardous								Hazardous											
	Particles			Aerosol	Light liquid splash*				Particles										Aerosol	Flame** resistance
	General dirt & grime	Animal waste	Sanding & grinding waste	Spray paints	Oil & grease	Lubricants	Fertilizer	Sewage	Fertilizer	Pesticides	Asbestos	Lead	Chromium	Beryllium	Mold	Fiberglass	Carbon	Radioactive particles	Isocyanate	
Tyvek®	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
ProShield® NexGen®	○	○	○	●	●	●	●	●												
ProShield®	○	○	○	○	○	○	○	○												
ProShield® Basic	○	○	○																	
Tempro®	○	○	○	○	○	○														●

● Generally preferred ○ Acceptable for use

*Liquid barrier performance varies based on the amount of liquid on the garment, the length of time the liquid is on the garment, applied pressures and certain physical properties of the liquid. In applications where a higher liquid barrier is needed, consider DuPont™ Tychem® protective garments.

**Tempro® garments are flame retardant treated, not inherently flame resistant, and are intended to be worn OVER primary flame-resistant protective apparel such as Nomex® IIIA.

It is the user's responsibility to determine the nature and level of hazard and the proper personal protective equipment needed. The information set forth herein reflects laboratory performance of fabrics, not complete garments, under controlled conditions. It is intended for information use by persons having technical skill for evaluation under their specific end-use conditions, at their own discretion and risk. Anyone intending to use this information should first verify that the garment selected is suitable for the intended use. In many cases, seams and closures have shorter breakthrough times and higher penetration rates than the fabric. Please contact DuPont for specific data. If the garment becomes torn, abraded or punctured, end user should discontinue use of garment to avoid potential exposure.

WARNINGS:

- 1) Tyvek®, ProShield® NexGen®, ProShield® and ProShield® Basic garments are not flame-resistant and should not be used around heat, flame, sparks or in potentially flammable or explosive environments.
- 2) Garments made of Tyvek®, ProShield® NexGen®, ProShield®, ProShield® Basic and Tempo® should have slip-resistant or anti-slip materials on the outer surface of boots, shoe covers or other garment surfaces in conditions where slipping may occur.
- 3) Tychem® should not be used around heat, flames, sparks or in potentially flammable or explosive environments. Only Tychem® ThermoPro, Tychem® Reflector® and Tychem® TK styles 600T/601T (with aluminized outer suit) garments are designed and tested to help reduce injury during escape from a flash fire. Users of Tychem® ThermoPro, Tychem® Reflector® and Tychem® TK styles 600T/601T (with aluminized outer suit) garments should not knowingly enter an explosive environment. Consult the Tychem® user manual, located on our website, for instructions on proper use, care and maintenance of your Tychem® garments.
- 4) Some Tychem® garments have attached socks made of the garment material. These attached socks must be worn inside protective outer footwear and are not suitable as outer footwear. These attached socks do not have adequate durability or slip resistance to be worn as the outer foot covering.
- 5) DuPont™ Tyvek® coveralls can be considered for use with the appropriate respirators and other suitable PPE to minimize contact with isocyanate paint aerosols. Tyvek® garments are not appropriate if they are getting wet (paint is dripping or running, or wet to the touch) or if spotting is observed on skin or garments worn under the coveralls. Tychem® aprons and smocks are available for situations where prolonged liquid exposure may be limited to the front of the torso and/or arms of the wearer. These aprons and smocks can be worn with Tyvek® to provide localized protection while limiting the level of thermal discomfort.

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DUPONT™ TYCHEM® CHEMICAL PROTECTION PRODUCTS

Garment	Typical chemical hazards/Examples								NFPA Ensembles					
	Hazardous dry powders & solids	Bloodborne pathogens & biohazards	Light chemical splash & aerosols	Moderate liquid chemical splash	Potential flash fire exposure & liquid organic chemicals	Heavy liquid chemical splash (toxics & corrosives)	ChemBio & warfare agents	Chemical vapors & gases (toxics & corrosives)	1991 Flash fire option	1991 Liq. gas option	1992	1994 Class 2	2112	70E Cat 2
Brands / Exposure	Dry pharma chemicals	Blood, saliva, human excrement	Inorganic acids and bases, salts	Organics, solvents	Meth-amphetamine	Known carcinogens	Sarin, Mustard, VX nerve agent	Chlorine, anhydrous ammonia						
Tychem® QC	●	●	●*											
Tychem® SL	●	●	●*											
Tychem® F		●	○	●			●							
Tychem® ThermoPro		○	○	●	●		●			●		●	●	
Tychem® CPF 3		●	○	●			○			●				
Tychem® LV		○	○	●		○	●			●	●			
Tychem® BR		○	○	●		○	●			●	●			
Tychem® Responder® CSM		○	○	●		●	●	●						
Tychem® TK		○	○	●	○**	●	●	●	●	●	●			
Tychem® Reflector®		○	○	●	●**	●	●	●	●	●				

● Generally preferred ○ Acceptable for use

*Serged and/or bound seams are degraded by some hazardous liquid chemicals, such as strong acids, and should not be worn when these chemicals are present.

**Tychem® Reflector® RF 600 T and Tychem® TK 600 T and TK 601 T have NFPA 1991 flash fire option.