

DuPont™ Tyvek® Plus

CE CERTIFIED GARMENTS

Tyvek® Plus garments are composed of flash spun high density polyethylene, which creates a unique, nonwoven material available only from DuPont. Tyvek® garments provide an ideal balance of protection, durability and comfort. They are now available with serged and over-taped seams that provide the performance of Type 4/5/6 garments, which have been tested to standards against heavy liquid aerosols and airborne solid particles. The coveralls provide an effective barrier against many water-based inorganic chemicals in low concentration and particles (down to 1.0 micron in size).

Tyvek® Plus coveralls are suitable for applications such as pharmaceutical manufacturing, medical applications, research and biosecurity laboratories, nuclear and maintenance.

Tyvek® Plus Type 4/5/6 coveralls offer the following safety and comfort benefits:

- Chemical protective clothing, Category III, Type 4-B, 5-B and 6-B
- EN 1073-2 (protection against radioactive contamination)
- Protection against infective agents (EN 14126), including resistance to penetration by blood and body fluids using synthetic blood (ISO 16603)
- Fabric and seams offer chemical permeation barrier to low concentration water-based inorganic chemicals
- Serged and over-taped seams for protection and strength
- Self-adhesive chin flap for tight seal of suit to the mask
- Elastic face, wrists and ankles, as well as glued-in waist elastic
- Elastic thumb loops keep sleeves in place



Properties of the Tyvek® Fabric Used for Tyvek® Plus Garment

Fabric Physical Properties	Test Method	Test Result	EN Class*
Abrasion Resistance	EN 530 (method 2)	>100 cycles	2/6
Flex Cracking Resistance	ISO 7854 (method B)	>100,000 cycles	6/6
Trapezoidal Tear Resistance	EN ISO 9073-4	>10N	1/6
Tensile Strength	EN ISO 13934-1	>60N	2/6
Puncture Resistance	EN 863	>10N	2/6

*According to EN 14325-2004

Fabric Resistance to Penetration by Liquids (EN ISO 6530)

Chemical	Penetration Index — EN Class*	Repellency Index — EN Class*
Sulfuric Acid, 30%	3/3	3/3
Sodium Hydroxide, 10%	3/3	3/3

*According to EN 14325-2004

Fabric and Taped Seams Resistance to Permeation by Liquids (EN ISO 6529 Method A, Breakthrough Time at 1 µg/cm²-min)

Chemical	Breakthrough Time, min	EN Class*
Sulfuric Acid, 18%	>480	6/6
Sulfuric Acid, 30%	>240	5/6
Sodium Hydroxide, 40%	>480	6/6

*According to EN 14325-2004

Properties of the DuPont™ Tyvek® Fabric Used for DuPont™ Tyvek® Plus Garment (continued)

Fabric Resistance to Penetration of Infective Agents

Test Method	Test Method	EN Class*
Resistance to penetration by blood and body fluids using synthetic blood	ISO 16603	3/6
Resistance to penetration by blood-borne pathogens using Phi-X174 bacteriophage	ISO 16604 Procedure D	No classification
Resistance to penetration by contaminated aerosols	EN ISO 22610	1/6
Resistance to penetration by biologically contaminated aerosols	ISO/DIS 22611	1/3
Resistance to penetration by contaminated solid particles	ISO 22612	1/3

*According to EN 14325-2004

Whole Suit Test Performance

Test Method	Test Result	EN Class
Type 4: High Level Spray Test (EN ISO 17491-4:2008, Method B)	Pass	N/A
Type 5: Particle Aerosol Inward Leakage Test (EN 13982-2)	Pass*** L_{jnm} 82/90 ≤ 30%** L_s 8/10 ≤ 15%**	N/A
Protection Factor According to EN 1073-2:2002	>50	2/3***
Type 6: Low Level Spray Test (EN ISO 17941-4:2008, Method A)	Pass	N/A
Seam Strength (EN ISO 13935-2)	>75N	3/6*

N/A = Not Applicable *According to EN 14325-2004 **82/90 means 91.1% L_{jnm} values ≤ 30% and 8/10 means 80% L_s values ≤ 15% *** Test performed with taped cuffs, hood and ankles

WARNING

Exposure to certain very fine particles, intensive liquid sprays and splashes of hazardous substances may require coveralls of higher mechanical strength and barrier protection than those offered by the Tyvek® Plus.

PRODUCT TERMS OF USE AND WARNINGS

Garments made using Tyvek® fabrics will burn and possibly melt. None of these garments should be worn near heat, open flames, sparks or any other possible ignition source nor should they be worn in potentially explosive or flammable environments. If these garments do burn or melt while being worn, it may increase the severity of burn injuries even when worn over garments which are flame resistant, including, but not limited to, Nomex® IIIA garments. This information is based upon technical data DuPont believes to be reliable. It is subject to revision as additional knowledge and experience are gained. DuPont makes no guarantee of 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. It is intended for information use by persons having technical skill for evaluation under the 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 may provide less barrier than the fabric. If the fabric becomes torn, abraded or punctured, end user should discontinue use of garment to avoid compromising the barrier protection. SINCE CONDITIONS OF USE ARE OUTSIDE OUR CONTROL, DUPONT MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE AND ASSUME NO LIABILITY IN CONNECTION WITH ANY USE OF THIS INFORMATION. This information is not intended as a license to operate under or a recommendation to infringe any patent, trademark right.

Garments made of Tyvek® should have slip-resistance materials on the outer surface of boots, shoe covers, or other garment surfaces in conditions where slipping could occur.

Tyvek® Plus contains natural rubber latex which may cause allergic reactions in some sensitized individuals. Anyone who begins to exhibit an allergic response during the use of DuPont products should immediately cease using these products.

DuPont Personal Protection

Customer Service:

United States 1 800 931 3456
Canada 1 800 387 9326



DuPont™ SafeSPEC™

www.SafeSPEC.DuPont.com