Model IC 270 B WH MS

Tyvek® IsoClean®

DuPont™ Tyvek® IsoClean® frock with bound neck model IC 270 B WH MS. Bound internal seams. Tunnelled at wrists. Front snap closure. Clean-processed and gamma-sterilized. Aseptically folded. White.

Name	Description
Full Part Number	IC0270BWHMS
Fabric/Materials	Tyvek® IsoClean® CS
Design	Frock with snap closure
Seam	Bound
Color	White
Quantity/Box	30 per box, induvidually packed. Subgrouped by 5 in an outer bag. 2 polyethylene liners. Cardboard box.

FEATURES & PRODUCT DETAILS

DuPont™ Tyvek® IsoClean® frock with bound neck, model IC 270 B WH MS. Available and in sizes SM to 3X. Clean-processed and gamma-sterilized. Bound internal seams. Tunnelled elastication at wrists. Front snap closure for easy donning and doffing.
Tyvek® IsoClean® delivers an ideal balance of protection, durability and comfort. Made of high density polyethylene using a patented flash spinning process. Tyvek® IsoClean® provides an inherent barrier to particles, microorganisms and non-hazardous water-based light liquid splash. Tyvek® IsoClean® is also breathable and exceptionally low linting.
Tyvek® IsoClean® (option codes CS, DS and MS) garments and accessories have been clean-processed to maximize cleanliness and have been sterilized by gamma- irradiation. They are folded to aid aseptic donning and packaged in an ISO class 4 cleanroom.
All DuPont™ Tyvek® IsoClean® clean-processed and sterile accessories (option MS) are packed in a dual barrier packaging system, consisting of an inner and outer easy tear cleanroom bag. The packaging system serves as a key element for contamination risk reduction when transferring apparel into clean areas. The accessories are individually packed and grouped together in an outer bag.
Garments and accessories made of clean-processed and sterile Tyvek® IsoClean® are typically used in cleanrooms within the biotech, pharmaceutical, medical device manufacturing, food processing, cosmetics industry as well as in other critical or controlled environments.

- Clean-processed and sterilised by gamma-irradiation to SAL of 10^{-6} (ISO 11137-1)
- Full traceability on all sterilized apparal with certificates of sterility available

- Suitable for use in GMP class A/B (ISO Class 5) clean rooms*
- PPE Category I

Physical Properties

Data relating to mechanical performance of the fabrics used in DuPont chemical protective clothing, listed for the selected garment according to the test methods and relevant European standard, if applicable. Such properties, including abrasion and flex-cracking resistance, tensile strength and puncture resistance can help in the assessment of protective performance.

Property	Test Method	Typical Result	EN
Abrasion Resistance [7]	EN 530 Method 2	>10 cycles	1 of 6 [1]
Basis Weight	DIN EN ISO 536	45 g/m^2	N/A
Colour.	N/A (598)	White	N/A
Exposure to high Temperature	N/A (598)	Melting point 135 °C	N/A
Flex Cracking Resistance [7]	EN ISO 7854 Method B	>100000 cycles	6 of 6 [1]
Puncture Resistance	EN 863	>5 N	1 of 6 [1]
Resistance to water penetration	DIN EN 20811	7 kPa	N/A
Surface Resistance at RH 25%, inside [7]	EN 1149-1	2^{10} Ohm	N/A
Tensile Strength (MD)	DIN EN ISO 13934-1	>30 N	1 of 6 [1]
Tensile Strength (XD)	DIN EN ISO 13934-1	>30 N	1 of 6 [1]
Thickness (PPSH-249)	DIN EN ISO 534	185 µm	N/A
Trapezoidal Tear Resistance (MD)	EN ISO 9073-4	>10 N	1 of 6 [1]
Trapezoidal Tear Resistance (XD)	EN ISO 9073-4	>10 N	1 of 6 [1]

1 According to EN 14325 2 According to EN 14126 3 According to EN 1073-2 4 According to EN 14116 12 According to EN 11612 5 Front Tyvek ® / Back 6 Based on test according to ASTM D-572 7 See Instructions for Use for further information, limitations and warnings > Larger than < Smaller than N/A Not Applicable STD DEV Standard Deviation

COMFORT

The comfort of a protective garment during use is largely determined by its weight, its permeability to vapour and air (breathability) and insulating properties. Data on these attributes is provided according to test method and, as with other data, can be compared by garment.

Property	Test Method	Typical Result	EN
Air Permeability (Gurley method)	ISO 5636-5	4 s	N/A
Air Permeability (Gurley method)	ISO 5636-5	Yes	N/A
Thermal Resistance, Rct	EN 31092/ISO 11092	$10*10^{-3}$ m^2*K/W	N/A
Thermal Resistance, clo value	EN 31092/ISO 11092	0.065 clo	N/A
Water Vapour Resistance, Ret	EN 31092/ISO 11092	6.8 m^2*Pa/W	N/A

2 According to EN 14126 5 Front Tyvek ® / Back > Larger than < Smaller than N/A Not Applicable

PENETRATION AND REPELLENCY

A specific test method, EN ISO 6530, is used to measure the indexes of penetration, absorption and repellency of protective clothing material exposed to liquid chemicals. Results listed here reflect the penetration resistance and repellency of DuPont fabrics to 30% sulphuric acid and 10% sodium hydroxide.

Property	Test Method	Typical Result	EN
Repellency to Liquids, Sodium Hydroxide (10%)	EN ISO 6530	>90 %	2 of 3 [1]
Repellency to Liquids, Sulphuric Acid (30%)	EN ISO 6530	>95 %	3 of 3 [1]
Resistance to Penetration by Liquids, Sodium Hydroxide (10%)	EN ISO 6530	<5 %	2 of 3 [1]
Resistance to Penetration by Liquids, Sulphuric Acid (30%)	EN ISO 6530	<1 %	3 of 3 [1]

1 According to EN 14325 > Larger than < Smaller than

BIOLOGICAL BARRIER

Detailed information on the protective performance (resistance to penetration) of DuPont clothing when exposed to biologically contaminated aerosols, liquids and dusts as well as blood, body fluids and blood-borne pathogens. Sorted by relevant European standard.

Property	Test Method	Typical Result	EN
Resistance to Penetration by Biologically Contaminated Aerosols	ISO/DIS 22611	Pass	1 of 3 [2]
Resistance to Penetration by Blood and Body Fluids using Synthetic Blood	ISO 16603	Pass	3 of 6 [2]
Resistance to Penetration by Blood-borne Pathogens using Bacteriophage Phi-X174	ISO 16604 Procedure D	No classification	No classification [2]
Resistance to Penetration by Contaminated Liquids	EN ISO 22610	Pass	1 of 6 [2]
Resistance to Penetration by Contaminated Solid Particles	ISO 22612	Pass	1 of 3 [2]

2 According to EN 14126 > Larger than < Smaller than

CLEANLINESS

Particle Shedding (Helmke Drum) and Bacterial Filtration Efficiency Data

Property	Test Method	Typical Result	EN
Bacterial Filtration Efficiency (3 µm)	ASTM F2101	98.4 % ± 0.9 % STD DEV	N/A
Particle Shedding (Helmke Drum)	IEST-RP-CC003.4	Category I	N/A

5 Front Tyvek ® / Back > Larger than < Smaller than N/A Not Applicable STD DEV Standard Deviation

HEAT AND FLAME, ARC

Information relating to the heat performance of fabrics used in DuPont chemical protective clothing, including heat resistance, limited flame spread behaviour, resistance to molten metal splashes and protection against arc flash.

Property	Test Method	Typical Result	EN

4 According to EN 14116 12 According to EN 11612

WARNING

- The information provided herein corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights.
- The intended use for Tyvek® IsoClean Accessories, that are not CE certified or certified as PPE Category I, does not include applications that may cause very serious consequences such as irreversible damage to health or death. The user should make the risk assessment to determine the protection required.

PERMEATION DATA

Permeation is the process by which a solid, liquid or gaseouses chemical moves through a protective clothing fabric at a molecular level. Permeation data assist in the selection of the most appropriate protective garment for a particular application and in the estimation of how long it can be safely worn. Standardised test methods are used to determine the resistance of DuPont materials to permeation, the results of which can be selected according to a specific chemical, chemical class or fabric.

Hazard / Chemical Name	Physical State	CAS	BT Act	BT 0.1	BT 1.0	EN	SSPR	MDPR	Cum 480	Time 150	ISO
Carboplatin (10 mg/ml)	Liquid	41575-94-4	>240	>240	>240	5	<0.001	0.001			
Carmustine (3.3 mg/ml, 10 % Ethanol)	Liquid	154-93-8	imm	imm	>240	5	<0.3	0.001			
Cisplatin (1 mg/ml)	Liquid	15663-27-1	>240	>240	>240	5	<0.001	0.001			
Cyclo phosphamide (20 mg/ml)	Liquid	50-18-0	imm	>10	>240	5	na	0.003			
Doxorubicin HCl (2 mg/ml)	Liquid	25136-40-9	>240	>240	>240	5	<0.001	0.001			
Etoposide (Toposar®, Teva) (20 mg/ml, 33.2 % (v/v) Ethanol)	Liquid	33419-42-0	>240	>240	>240	5	<0.01	<0.01			
Fluorouracil, 5- (50 mg/ml)	Liquid	51-21-8	imm	imm	imm		na	0.001			
Gemcitabine (38 mg/ml)	Liquid	95058-81-4	imm	>60	>240	5	<0.4	0.005			
Ifosfamide (50 mg/ml)	Liquid	3778-73-2	imm	imm	>60	3	na	0.003			
Oxaliplatin (5 mg/ml)	Liquid	63121-00-6	imm	imm	imm		na	0.001			
Paclitaxel (Hospira) (6 mg/ml, 49.7 % (v/v) Ethanol)	Liquid	33069-62-4	>240	>240	>240	5	<0.01	<0.01			
Thiotepa (10 mg/ml)	Liquid	52-24-4	imm	imm	imm		na	0.001			

Important Note.