



IC 703S 00

# Tyvek® IsoClean®

DuPont™ Tyvek® IsoClean® Chemo gown IC 703S 00. Collared gown with hook and loop closure in the neck. Serged seams. Not clean-processed and not sterilized. Knit cuffs. Bound ties at waist originating from elasticated sides. White.

Name Description

Full Part Number IC 703S 00

Fabric/Materials Tyvek® 500

Design Collared gown with hook and loop closure in the neck, knitted cuffs and bound ties at waist.

Seam Serged

White Color

Sizes XS, SM, MD, LG, XL, 2XL, 3XL

Quantity/Box 30 per box, bulk packed. 2 polyethylene liners. Cardboard box

#### **FEATURES & PRODUCT DETAILS**

DuPont™ Tyvek® IsoClean® Chemo gown IC 703S 00. Available in sizes XS to 3X. Collared gown with hook and loop closure in the neck. Increased skirt length ensures protection against frontal exposure. Openness in the back closure increases wearer comfort. Serged seams. Not clean-processed and not sterilized. Knit cuffs. Bound ties at waist originating from elasticated sides. 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 liquid splash.

Tyvek® IsoClean® (option codes 0B, 00 and BH) garments and accessories are neither clean-processed nor gamma-irradiated but manufactured in a controlled environment.

Garments and accessories made of 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. Tyvek® IsoClean® Chemo gown is ideal for handling cytostatics and various laboratory activities.

- Certified according to Regulation (EU) 2016/425
- Partial body chemical protective clothing, Category III, Type PB [6-B].
- EN 14126 (barrier to infective agents).
- Suitable for use in GMP class C/D (ISO Class 6-9) clean rooms

# SIZES

Product Size	Article Number	Additional info
XS	D15542351	
SM	D15542352	
MD	D15542353	
LG	D15542354	
XL	D15542355	
2X	D15542356	
3X	D15542357	

## **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 <sup>7</sup>	EN 530 Method 2	>100 cycles	2/6 <sup>1</sup>
Colour.	N/A (598)	White	N/A
Flex Cracking Resistance <sup>7</sup>	EN ISO 7854 Method B	>100000 cycles	6/6 <sup>1</sup>
Puncture Resistance	EN 863	>10 N	2/6 <sup>1</sup>
Tensile Strength (MD)	DIN EN ISO 13934-1	>30 N	1/6 <sup>1</sup>
Tensile Strength (XD)	DIN EN ISO 13934-1	>30 N	1/6 <sup>1</sup>
Trapezoidal Tear Resistance (MD)	EN ISO 9073-4	>10 N	1/6 1
Trapezoidal Tear Resistance (XD)	EN ISO 9073-4	>10 N	1/6 <sup>1</sup>

<sup>1</sup> 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

#### **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
Acetic acid (30%)	Liquid	64-19-7	imm	imm	imm		13.5	0.001			
Ammonium hydroxide (16%)	Liquid	1336-21- 6	imm	imm	imm		20.3	0.005			
Ammonium hydroxide (28% - 30%)	Liquid	1336-21- 6	imm	imm	imm		16.7	0.014			
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			
Caustic ammonia (16%)	Liquid	1336-21- 6	imm	imm	imm		20.3	0.005			
Caustic ammonia (28% - 30%)	Liquid	1336-21- 6	imm	imm	imm		16.7	0.014			
Caustic soda (10%)	Liquid	1310-73- 2	>240	>480	>480	6	<0. 005	0.005			
Caustic soda (40%)	Liquid	1310-73- 2	imm	>30	>240	5	<0. 005	0.005			
Caustic soda (50%)	Liquid	1310-73- 2	imm	>30	>240	5	0.85	0.01			
Caustic soda (>95%, solid)	Solid	1310-73- 2	>480	>480	>480	6	<0.01	0.01			
Cisplatin (1 mg/ml)	Liquid	15663- 27-1	>240	>240	>240	5	<0. 0002	0.0002			
Cyclo phosphamide (20 mg/ml)	Liquid	50-18-0	>240	>240	>240	5	<0. 002	0.002			
Dimethyl sulfate	Liquid	77-78-1	imm	imm	imm		>160	0.02			
Doxorubicin HCl (2 mg/ml)	Liquid	25136- 40-9	>240	>240	>240	5	<0. 003	0.003			
Ethane 1,2-diol	Liquid	107-21-1	imm	imm	imm		6.6	0.002			
Ethylene glycol	Liquid	107-21-1	imm	imm	imm		6.6	0.002			
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	>30	2	na	0.001			
Formic acid (30%)	Liquid	64-18-6	imm	imm	imm		nm	0.001			

Ganciclovir (3 mg/ml)	Liquid	82410- 32-0	>240	>240	>240	5	<0. 005	0.005			
Gemcitabine (38 mg/ml)	Liquid	95058- 81-4	imm	>60	>240	5	<0.4	0.005			
Glycerine	Liquid	56-81-5	>240	>480	>480	6	0.03	0.01			
Glycerol	Liquid	56-81-5	>240	>480	>480	6	0.03	0.01			
Glycol alcohol	Liquid	107-21-1	imm	imm	imm		6.6	0.002			
Hydrochloric acid (16%)	Liquid	7647-01- 0	imm	imm	imm		na	0.05			
Hydrochloric acid (32%)	Liquid	7647-01- 0	imm	imm	imm		na	0.05			
Hydrogen peroxide (10%)	Liquid	7722-84- 1	>10	>10	>480	6	<0.01	0.01			
Hydrogen peroxide (30%)	Liquid	7722-84- 1	imm	imm	imm		>0.11	0.04			
Ifosfamide (50 mg/ml)	Liquid	3778-73- 2	imm	imm	>240	5	<0.5	0.003	·	>480	6

Hazard / Chemical Name	Physical State	CAS	BT Act	BT 0.1	BT 1.0	EN	SSPR	MDPR	Cum 480	Time 150	ISO
Irinotecan (20 mg/ml)	Liquid	100286- 90-6	imm	>240	>240	5	<0.1	0.0028			
Methotrexate (25 mg/ml, 0.1 N NaOH)	Liquid	59-05-2	>240	>240	>240	5	<0.001	0.001			
Mitomycin (0.5 mg/ml)	Liquid	50-07-7	>240	>240	>240	5	<0. 0009	0.0009			
Nicotine (9 mg/ml)	Liquid	54-11-5	>480	>480	>480	6	<0.08	0.08			
Nitric acid (10%)	Liquid	7697-37-2	>60	>120	>480	6	na	0.05		>477	5
Nitric acid (30%)	Liquid	7697-37-2	imm	imm	imm		4.6	0.001			
Oxaliplatin (5 mg/ml)	Liquid	63121-00- 6	imm	imm	imm		na	0.006			
Paclitaxel (Hospira) (6 mg/ml, 49.7 % (v/v) Ethanol)	Liquid	33069-62- 4	>240	>240	>240	5	<0.01	<0.01			
Phosphoric acid (50%)	Liquid	7664-38-2	>480	>480	>480	6	<0.05	0.05			
Potassium chromate (sat)	Liquid	7789-00-6	>480	>480	>480	6	<0.005	0.005			
Potassium hydroxide (40%)	Liquid	1310-58-3	imm	imm	>30	2	0.7	0.001			
Propane -1,2,3-triol	Liquid	56-81-5	>240	>480	>480	6	0.03	0.01			
Sodium acetate (sat)	Liquid	127-09-3	imm	>480	>480	6	<0.1	0.05		>480	6
Sodium chloride (9 g/l)	Liquid	7647-14-5	>240	>240	>240	5	<0.02	0.02			
Sodium hydroxide (10%)	Liquid	1310-73-2	>240	>480	>480	6	<0.005	0.005			
Sodium hydroxide (40%)	Liquid	1310-73-2	imm	>30	>240	5	<0.005	0.005			
Sodium hydroxide (50%)	Liquid	1310-73-2	imm	>30	>240	5	0.85	0.01			
Sodium hydroxide (>95%, solid)	Solid	1310-73-2	>480	>480	>480	6	<0.01	0.01			
Sodium hypochlorite (10-15 % active chlorine)	Liquid	7681-52-9	>240	>240	>480	6	<0.6	0.05			
Sodium hypochlorite (5.25-6%)	Liquid	7681-52-9	>480	>480	>480	6	<0.025	0.025			
Sulfuric acid (18%)	Liquid	7664-93-9	>240	>240	>480	6	<0.05	0.05			
Sulfuric acid (30%)	Liquid	7664-93-9	>10	>240	>240	5	<0.05	0.05			
Sulfuric acid (50%)	Liquid	7664-93-9	imm	>30	>60	3	38	0.01			
Sulfuric acid dimethyl ester	Liquid	77-78-1	imm	imm	imm		>160	0.02			
Thiotepa (10 mg/ml)	Liquid	52-24-4	imm	imm	imm		na	0.001			
Vincristine sulfate (1 mg/ml)	Liquid	2068-78-2	>240	>240	>240	5	<0.001	0.001			
Vinorelbine (0.1 mg/ml)	Liquid	71486-22- 1	>240	>240	>240	5	<0. 0209	0.00209			

BTAct (Actual) Breakthrough time at MDPR [mins] BT0.1 Normalized breakthrough time at  $0.1 \,\mu\text{g/cm}^2\text{/min}$  [mins] BT1.0 Normalized breakthrough time at  $1.0 \,\mu\text{g/cm}^2\text{/min}$  [mins] EN Classification according to EN 14325 SSPR Steady state permeation rate [ $\mu\text{g/cm}^2\text{/min}$ ] MDPR Minimum detectable permeation rate [ $\mu\text{g/cm}^2\text{/min}$ ] CUM480 Cumulative permeation mass after 480 mins [ $\mu\text{g/cm}^2$ ] Time150 Time to reach cumulative permeation mass of 150  $\mu\text{g/cm}^2$  [mins] ISO Classification according to ISO 16602 CAS Chemical abstracts service registry number min Minute > Larger than

< Smaller than imm Immediate (< 10 min) nm Not tested sat Saturated solution N/A Not Applicable na Not attained GPR grade General purpose reagent grade \* Based on lowest single value 8 Actual breakthrough time; normalized breakthrough time is not available DOT5 Degradation after 5 min DOT30 Degradation after 30 min DOT60 Degradation after 60 min DOT240 Degradation after 240 min BT1383 Normalized breakthrough time at 0.1 µg /cm²/min [mins] acc. ASTM F1383</p>

Important Note.

## **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	1/3 <sup>2</sup>
Resistance to Penetration by Blood and Body Fluids using Synthetic Blood	ISO 16603	3,5 kPa	3/6 <sup>2</sup>
Resistance to Penetration by Blood-borne Pathogens using Bacteriophage Phi-X174	ISO 16604	No classification	2/6 <sup>2</sup>
Resistance to Penetration by Contaminated Liquids	EN ISO 22610	≤ 15 min	1/6 <sup>2</sup>
Resistance to Penetration by Contaminated Solid Particles	ISO 22612	Pass	1/3 <sup>2</sup>

2 According to EN 14126 > Larger than < Smaller than

#### 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	>95 %	3/3 1
Repellency to Liquids, Sulphuric Acid (30%)	EN ISO 6530	>95 %	3/3 1
Resistance to Penetration by Liquids, Sodium Hydroxide (10%)	EN ISO 6530	<1 %	3/3 1
Resistance to Penetration by Liquids, Sulphuric Acid (30%)	EN ISO 6530	<1 %	3/3 <sup>1</sup>

1 According to EN 14325 > Larger than < Smaller than

#### **GARMENT PERFORMANCE**



Information relating to the protective performance of a garment according to European standards where applicable. Includes important characteristics such as protection against radioactive contamination, seam strength and shelf life. Inward leakage and resistance to penetration by liquids, according to the relevant Type classification, are also detailed.

Property	Test Method	Typical Result	EN
Seam Strength	EN ISO 13935-2	>30 N	1/6 <sup>1</sup>
Type PB 6: Partial Body Protection	EN 13034	Pass	N/A

<sup>1</sup> According to EN 14325 3 According to EN 1073-2 12 According to EN 11612 13 According to EN 11611 5 Front Tyvek ® / Back 6 Based on test according to ASTM D-572 7 See Instructions for Use for further information, limitations and warnings 11 Based on the average of 10 suits, 3 activities, 3 probes > Larger than < Smaller than N/A Not Applicable \* Based on lowest single value