QC273B YL

DuPont™ Tychem® 2000

DuPont™ Tychem® 2000 Bib Apron. 28" x 36". Neck Loop & Waist Ties. Bound Seams. Yellow.

Name	Description
Full Part Number	QC273BYLxx0100yy (xx=size;yy=option code)
Fabric/Materials	TYCHEM® 2000
Design	Bib Apron
Seam	Bound
Color	Yellow
Quantity/Box	100 per case

FEATURES & PRODUCT DETAILS

A lightweight, and durable fabric, DuPont™ Tychem® 2000 utilizes the strength of DuPont™ Tyvek® fabric and a polyethylene coating. Tychem® 2000 fabric provides at least 30 minutes of protection against 42 chemical challenges. Tychem® 2000 is used for light splash protection in a variety of industrial environments, including petroleum refining, pulp and paper manufacturing, food processing, chemical processing, and pharmaceutical manufacturing.

ADDITIONAL EQUIPMENT NEEDED

- Please read, understand and follow the Tychem® User Manual.
- This garment only provides partial body coverage. It may be worn in combination with other chemical resistant PPE as required based on the hazard assessment.
- Wear other appropriate PPE such as, but not limited to, respiratory, eye, head, hand, and foot protection based on the hazard assessment.

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
Basis Weight	ASTM D3776	2.5 oz/yd^2
Breaking Strength - Grab (CD)	ASTM D5034	48 lb_f
Breaking Strength - Grab (MD).	ASTM D5034	39 lb_f
Burst Strength - Mullen.	ASTM D3786	72 psi
Tear Resistance - Trap Tear (CD)	ASTM D1117	4.7 lb_f
Tear Resistance - Trap Tear (MD)	ASTM D1117	6.4 lb_f
Thickness (PPSH-249)	ASTM D1777	10 mils
Wearing Apparel Flammability	16 CFR 1610	Class 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

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.

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
2-Methyl-4-isothiazolin-3-one (20%)	Liquid	2682-20-4	>480	>480	>480	6	<0.005	0.005	<2.4	>480	6
Acetic acid (>95%)	Liquid	64-19-7	imm	imm	imm		3	0.05 ppm			
Acetic acid ethyl ester	Liquid	141-78-6	imm	imm	imm		12.7	0.11 ppm			
Acetone	Liquid	67-64-1	imm	imm	imm		5.9				
Acetonitrile	Liquid	75-05-8	imm	imm	imm		9.4	0.13 ppm			
Acroleic acid	Liquid	79-10-7	imm	imm	imm		5.4	0.2			
Acrylic acid	Liquid	79-10-7	imm	imm	imm		5.4	0.2			
Acrylonitrile	Liquid	107-13-1	imm	imm	imm		10.6	0.005			
Amido sulfonic acid (15%)	Liquid	5329-14-6	>480	>480	>480	6	<0.05	0.05	<24	>480	6
Amino benzene	Liquid	62-53-3	imm	imm	imm		2.1	0.14			
Ammonia (gaseous)	Vapor	7664-41-7	imm	imm	imm		3.1	0.001			
Ammonium hydroxide (28% - 30%)	Liquid	1336-21-6	imm	imm	imm		62	0.035			
Aniline	Liquid	62-53-3	imm	imm	imm		2.1	0.14			
Benzenamine	Liquid	62-53-3	imm	imm	imm		2.1	0.14			
Benzisothiazol 1,2- (20%)	Liquid	2634-33-5	>480	>480	>480	6	<0.061	0.061	<30	>480	6
Black Liquor (mix)	Liquid	mix	>480	>480	>480	6	<0.1	0.1	<48	>480	6
Bromine	Liquid	7726-95-6	imm	imm	imm		>50	0.0064			
Butadiene, 1,3- (gaseous)	Vapor	106-99-0	imm	imm	imm		>12	0.001			
Butanal, n-	Liquid	123-72-8	imm	imm	imm		22	0.0063			
Butanol, 1-	Liquid	71-36-3	imm	imm	imm		1.6	0.057 ppm			
Butanol, n-	Liquid	71-36-3	imm	imm	imm		1.6	0.057 ppm			
Butyl alcohol, n-	Liquid	71-36-3	imm	imm	imm		1.6	0.057 ppm			
Butyraldehyde, n-	Liquid	123-72-8	imm	imm	imm		22	0.0063			
Carbon disulfide	Liquid	75-15-0	imm	imm	imm		4367	0.0057 ppm			
Carmustine (3.3 mg/ml, 10 % Ethanol)	Liquid	154-93-8	49* /129	>240	>240	5	0.012	<0.01		>240	5
Caustic ammonia (28% - 30%)	Liquid	1336-21-6	imm	imm	imm		62	0.035			
Caustic soda (50%)	Liquid	1310-73-2	>480	>480	>480	6	<0.016	0.016	<7.7	>480	6
Chemguard S-764P14A	Liquid	mix	>480	>480	>480	6	<0.01	0.01	<5	>480	6
Chlorine (20 ppm)	Vapor	7782-50-5		>480[8]							
Chlorine (gaseous)	Vapor	7782-50-5	imm	imm	imm		>50	0.2			

Hazard / Chemical Name	Physical State	CAS	BT Act	BT 0.1	BT 1.0	EN	SSPR	MDPR	Cum 480	Time 150	ISO
Chloro 2-nitrobenzene, 1-	Solid	88-73-3	15	15	15	1	4.1	0.1			
Chloro acetic acid (80%)	Liquid	79-11-8	>480	>480	>480	6	0.038	0.038	<18.3	>480	6
Chloro ethanol, 2-	Liquid	107-07-3	imm	imm	imm		3.1	0.06 ppm			
Chloro form	Liquid	67-66-3	imm	imm	imm		348	1 ppm			
Cresol o-	Liquid	95-48-7	12	13	20	1	15.3	0.0174			
Cresols, mixed isomers	Liquid	1319-77-3	70	71	77	3	11.7	0.0169			
Cresylic acid	Liquid	1319-77-3	70	71	77	3	11.7	0.0169			
Cyanoethylene	Liquid	107-13-1	imm	imm	imm		10.6	0.005			
Cyanomethane	Liquid	75-05-8	imm	imm	imm		9.4	0.13 ppm			
Cyclo phosphamide (20 mg/ml)	Liquid	50-18-0	>240	>240	>240	5	<0.01	<0.01		>240	5
Diaminoethane, 1,2-	Liquid	107-15-3	25	>480	>480	6	0.004	0.005			
Dichloro methane	Liquid	75-09-2	imm	imm	imm		>50	0.001			
Diesel automotive test fuel	Liquid	mix	imm	imm			3.29	0.01			
Diethyl amine	Liquid	109-89-7	imm	imm	imm		64.3	0.017 ppm			
Dimethyl acetamide, N,N- (8%)	Liquid	127-19-5	>480	>480	>480	6	<0.005	0.005	<2.4	>480	6
Dimethyl formamide, N,N-	Liquid	68-12-2	imm	imm	>480	6	0.73	0.001			
Dimethyl ketal	Liquid	67-64-1	imm	imm	imm		5.9				
Dimethyl ketone	Liquid	67-64-1	imm	imm	imm		5.9				
Diphenyl methane diisocyanate, 4,4'- (50 ° C, molten)	Liquid	101-68-8	>480	>480	>480	6	<0.0403	0.0403	<19.3	>480	6
Disodium sulfide (60% (slurry))	Liquid	1313-82-2		>480	>480	6	<0.1	0.052			
Doxorubicin HCl (2 mg/ml)	Liquid	25136-40-9	>240	>240	>240	5	<0.01	<0.01		>240	5
DuPont Activator 193S (mix)	Liquid	mix	>480	>480	>480	6	<0.1	0.1	<48	>480	6
DuPont Activator 4505S (mix)	Liquid	mix	>480	>480	>480	6	<0.01	0.01	<4.8	>480	6
DuPont Activator 4507S (mix)	Liquid	mix	>480	>480	>480	6	<0.1	0.1	<48	>480	6
Epoxy ethane (gaseous)	Vapor	75-21-8	imm	imm	imm		170	0.02			
Ethane 1,2-diol	Liquid	107-21-1	>480	>480	>480	6	<0.05	0.05	<24	>480	6
Ethane nitrile	Liquid	75-05-8	imm	imm	imm		9.4	0.13 ppm			
Ethyl acetate	Liquid	141-78-6	imm	imm	imm		12.7	0.11 ppm			
Ethyl ethanamine, N-	Liquid	109-89-7	imm	imm	imm		64.3	0.017 ppm			
Ethyl nitrile	Liquid	75-05-8	imm	imm	imm		9.4	0.13 ppm			

Hazard / Chemical Name	Physical State	CAS	BT Act	BT 0.1	BT 1.0	EN	SSPR	MDPR	Cum 480	Time 150	ISO

Ethylene carboxylic acid	Liquid	79-10-7	imm	imm	imm		5.4	0.2			
Ethylene chlorohydrin	Liquid	107-07-3	imm	imm	imm		3.1	0.06 ppm			
Ethylene diamine	Liquid	107-15-3	25	>480	>480	6	0.004	0.005			
Ethylene glycol	Liquid	107-21-1	>480	>480	>480	6	<0.05	0.05	<24	>480	6
Ethylene oxide (gaseous)	Vapor	75-21-8	imm	imm	imm		170	0.02			
Ethylene tetrachloride	Liquid	127-18-4	imm	imm	imm		>400	0.11 ppm			
Etoposide (Toposar®, Teva) (20 mg/ml, 33.2 % (v/v) Ethanol)	Liquid	33419-42-0	>240	>240	>240	5	<0.01	<0.01		>240	5
Fluorouracil, 5- (50 mg/ml)	Liquid	51-21-8	>240	>240	>240	5	<0.01	<0.01		>240	5
Formalin (3.7%, 1-1.5% Methanol)	Liquid	50-00-0	>480	>480	>480	6	<0.0048	0.0048	<2.3	>480	6
Formalin (37% (10-15% Methanol))	Liquid	50-00-0	imm	imm	>480	6	0.84	0.0048			
Fuel-oil no 2	Liquid	68476-30-2	imm	imm	imm		1.776	0.01			
Glutaral (5%)	Liquid	111-30-8	>480	>480	>480	6	<0.005	0.005	<48	>480	6
Glutaraldehyde (5%)	Liquid	111-30-8	>480	>480	>480	6	<0.005	0.005	<48	>480	6
Glycol alcohol	Liquid	107-21-1	>480	>480	>480	6	<0.05	0.05	<24	>480	6
Glycol chlorohydrin	Liquid	107-07-3	imm	imm	imm		3.1	0.06 ppm			
Green Liquor (mix)	Liquid	mix	>480	>480	>480	6	<0.1	0.1	<48	>480	6
Hexamethylene diisocyanate	Liquid	822-06-0	>480	>480	>480	6	<0.0271	0.0271	<13.0	>480	6
Hexane, n-	Liquid	110-54-3	imm	imm	imm		407	0.035 ppm			
Hydrochloric acid (37%)	Liquid	7647-01-0	65	140	450	5	0.746	0.01			
Hydrofluoric acid (48-51%)	Liquid	7664-39-3	166*/200	446	>480	6	<0.12	0.025	9.3	>480	6
Hydrogen chloride (gaseous)	Vapor	7647-01-0	imm	imm	imm						
Hydrogen fluoride (20-27 °C, gaseous)	Vapor	7664-39-3	imm	imm			6	0.2 ppm			
Hydrogen peroxide (30%)	Liquid	7722-84-1	>480	>480	>480	6	<0.025	0.025	<12	>480	6
Hydrogen peroxide (50%)	Liquid	7722-84-1	>480	>480	>480	6	<0.001	0.001	<0.48	>480	6
Hydrogen peroxide (70%)	Liquid	7722-84-1	>480	>480	>480	6	<0.025	0.025	<12	>480	6
Hydroxy toluene, o-	Liquid	95-48-7	12	13	20	1	15.3	0.0174			
Isopropanol	Liquid	67-63-0	imm	imm	imm		8	0.04			
Isopropanol (70%)	Liquid	67-63-0	imm	imm	imm		6.3	0.0097			
Isopropyl alcohol	Liquid	67-63-0	imm	imm	imm		8	0.04			
Isopropyl alcohol (70%)	Liquid	67-63-0	imm	imm	imm		6.3	0.0097			

Hazard / Chemical Name	Physical State	CAS	BT Act	BT 0.1	BT 1.0	EN	SSPR	MDPR	Cum 480	Time 150	ISO

Ketone propane	Liquid	67-64-1	imm	imm	imm		5.9				
Limonene d-	Liquid	5989-27-5	imm	imm	imm		29.8	0.02			
Lithium chloride (20%)	Liquid	7447-41-8	>480	>480	>480	6	<0.025	0.025	<12	>480	6
Lithium hydroxide (14.9%)	Liquid	1310-65-2	>480	>480	>480	6	<0.05	0.05	<24	>480	6
Mercury	Liquid	7439-97-6	>480	>480	>480	6	<0.09	0.09	<43.2	>480	6
Methanol	Liquid	67-56-1	imm	imm	imm		358.7	0.92 ppm			
Methyl 4-isopropenyl-1-cyclohexene, 1-	Liquid	5989-27-5	imm	imm	imm		29.8	0.02			
Methyl acetyl	Liquid	67-64-1	imm	imm	imm		5.9				
Methyl benzol	Liquid	108-88-3	imm	imm	imm			0.04			
Methyl chloride (gaseous)	Vapor	74-87-3	imm	imm	>480	6	0.23	0.001			
Methyl cyanide	Liquid	75-05-8	imm	imm	imm		9.4	0.13 ppm			
Methyl ketone	Liquid	67-64-1	imm	imm	imm		5.9				
Methyl phenols	Liquid	1319-77-3	70	71	77	3	11.7	0.0169			
Methyl salicylate	Liquid	119-36-8	<15	<15	>480	6	0.5	0.01			
Methylene chloride	Liquid	75-09-2	imm	imm	imm		>50	0.001			
Methylene diphenyl diisocyanate, 4,4'- (50 ° C, molten)	Liquid	101-68-8	>480	>480	>480	6	<0.0403	0.0403	<19.3	>480	6
Mineral spirit	Liquid	64475-85-0	imm	imm	imm						
Nitric acid (70%)	Liquid	7697-37-2	465	>480	>480	6	<0.025	0.025	<0.4	>480	6
Nitro benzene	Liquid	98-95-3	imm	imm	imm		17.7	0.001			
Nitro chlorobenzene, p-	Solid	100-00-5	imm	imm	imm		2.3	0.1			
Nitro toluene, p-	Solid	99-99-0	imm	imm	imm		14	0.1			
Oleum (103% (13% free SO3))	Liquid	8014-95-7	220	230	430	5	1.13	0.03			
Oleum (20% free SO3)	Liquid	8014-95-7	30	60	420	5	1.126	0.01			
Paclitaxel (Hospira) (6 mg/ml, 49.7 % (v/v) Ethanol)	Liquid	33069-62-4	>240	>240	>240	5	<0.01	<0.01		>240	5
Pentanedial, 1,5- (5%)	Liquid	111-30-8	>480	>480	>480	6	<0.005	0.005	<48	>480	6
Phenol (85%)	Liquid	108-95-2	imm	11	>480	6	0.4	0.05			
Phenyl amine	Liquid	62-53-3	imm	imm	imm		2.1	0.14			
Polymethylene polyphenyle isocyanate (p-MDI)	Liquid	9016-87-9	>480	>480	>480	6	0.0303	0.0303	<14.5	>480	6
Potassium cyanide (10%)	Liquid	151-50-8	>480	>480	>480	6	<0.025	0.025	<12	>480	6
Potassium hydroxide (45%)	Liquid	1310-58-3	>480	>480	>480	6	<0.023	0.023	<11	>480	0

Hazard / Chemical Name	Physical State	CAS	BT Act	BT 0.1	BT 1.0	EN	SSPR	MDPR	Cum 480	Time 150	ISO
Potassium permanganate (sat)	Liquid	7722-64-7	>480	>480	>480	6	<0.025	0.025	<12	>480	6
Propan -2-ol	Liquid	67-63-0	imm	imm	imm		8	0.04			
Propan -2-ol (70%)	Liquid	67-63-0	imm	imm	imm		6.3	0.0097			
Propan -2-one	Liquid	67-64-1	imm	imm	imm		5.9				
Propene acid	Liquid	79-10-7	imm	imm	imm		5.4	0.2			
Propenenitrile, 2-	Liquid	107-13-1	imm	imm	imm		10.6	0.005			
Propenoic acid nitrile	Liquid	107-13-1	imm	imm	imm		10.6	0.005			
Pyroacetic ether	Liquid	67-64-1	imm	imm	imm		5.9				
Sodium cyanide (45%)	Liquid	143-33-9	>480	>480	>480	6	<0.025	0.025	<12	>480	6
Sodium hydroxide (50%)	Liquid	1310-73-2	>480	>480	>480	6	<0.016	0.016	<7.7	>480	6
Sodium hypochlorite (15%)	Liquid	7681-52-9	>480	>480	>480	6	<0.03	0.03	<14.4	>480	6
Sodium hypochlorite (5.25-6%)	Liquid	7681-52-9	>480	>480	>480	6	<0.025	0.025	<12	>480	6
Sodium metabisulphite (38%)	Liquid	7681-57-4		imm							
Sodium silicate (40-42%)	Liquid	6834-92-0	>480	>480	>480	6	<0.01	0.01	<4.8	>480	6
Spectracide® (50% Malathion, 44% Aromatic Solvent)	Liquid	mix	imm	imm	imm		309	0.0242			
Sulfamic acid (15%)	Liquid	5329-14-6	>480	>480	>480	6	<0.05	0.05	<24	>480	6
Sulfamidic acid (15%)	Liquid	5329-14-6	>480	>480	>480	6	<0.05	0.05	<24	>480	6
Sulfur dioxide	Vapor	7446-09-5	imm	imm			>29	0.14			
Sulfuric acid (>95%)	Liquid	7664-93-9	>480	>480	>480	6	<0.02	0.02	<9.6	>480	6
Sulfuric acid fuming (103% (13% free SO3))	Liquid	8014-95-7	220	230	430	5	1.13	0.03			
Sulfuric acid fuming (20% free SO3)	Liquid	8014-95-7	30	60	420	5	1.126	0.01			
Tetrachloro ethylene, 1,1,2,2-	Liquid	127-18-4	imm	imm	imm		>400	0.11 ppm			
Tetrahydrofuran	Liquid	109-99-9	imm	imm	imm			0.05			
Tetramethyl ammonium hydroxide (25%)	Liquid	75-59-2	>480	>480	>480	6	<0.01	0.01	<4.8	>480	6
Thiotepa (10 mg/ml)	Liquid	52-24-4	69*/93	>240	>240	5	0.02	<0.01		>240	5
Toluene	Liquid	108-88-3	imm	imm	imm			0.04			

Toluene diisocyanate, 2,4-	Liquid	584-84-9	imm	imm	imm		7	0.01			
Toluene diisocyanate, 2,4- (80%)	Liquid	584-84-9	59	60	97	3	6.75	0.0281			
Trichloro benzene, 1,2,4-	Liquid	120-82-1	imm	imm	imm		8.4	0.001			
Trichloro methane	Liquid	67-66-3	imm	imm	imm		348	1 ppm			

Hazard / Chemical Name	Physical State	CAS	BT Act	BT 0.1	BT 1.0	EN	SSPR	MDPR	Cum 480	Time 150	ISO
Trifluoro ethanol, 2,2,2-	Liquid	75-89-8	imm	imm	imm						
Vinyl cyanide	Liquid	107-13-1	imm	imm	imm		10.6	0.005			
Vinyl ethylene (gaseous)	Vapor	106-99-0	imm	imm	imm		>12	0.001			
White Liquor	Liquid	mix	>480	>480	>480	6	<0.1	0.1	<48	>480	6

Important Note.