

DuPont™ Tychem® BR

A WIDE RANGE OF CHEMICAL PROTECTION
WITH ENHANCED DURABILITY.

Technical Data Sheet



Wide-Ranging Protection

DuPont™ Tychem® BR is backed by extensive barrier documentation. Tychem® BR provides at least 30 minutes of protection against 282 chemical challenges, including chemical warfare agents and the ones frequently involved in industrial or HazMat incidents. Thus, Tychem® BR offers far-reaching protection for workers handling hazardous chemicals.

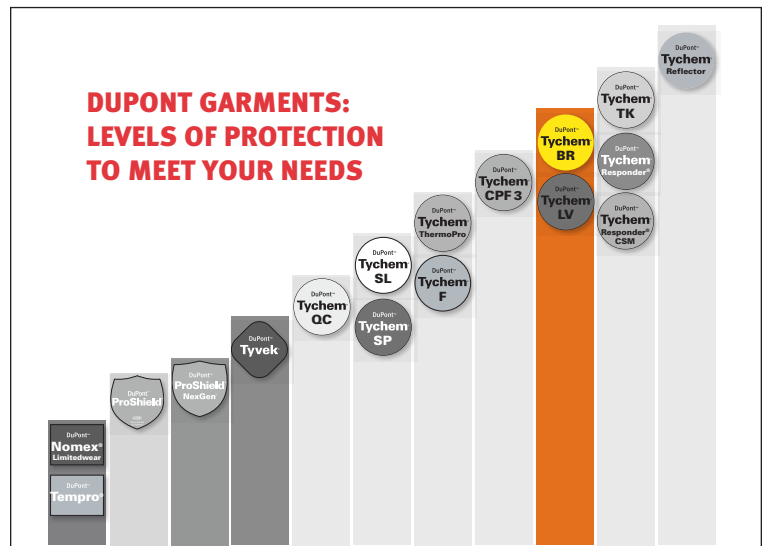
Durable Value

Tychem® BR offers the tear, puncture and abrasion resistance you've come to associate with chemical protective clothing made with DuPont fabrics, for lasting protection and consistent value.

Enhanced Comfort

Tychem® BR is soft and lightweight for comfort and ease of movement. Its flexible fabric can make it easier to move around in various types of work environments.

DUPONT GARMENTS: LEVELS OF PROTECTION TO MEET YOUR NEEDS



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High Visibility

The yellow color of Tychem® BR is highly visible in both bright and dim light, offering greater protection for HazMat teams, transportation emergency teams and emergency response teams.

If your application calls for discretion, consider garments made of Tychem® LV which offers the same barrier and durability performance as Tychem® BR but in a low visibility color.

Physical Properties of DuPont™ Tychem® BR

Property	Values	Standard
Thickness, mil	18	ASTM D1777
Basis Weight, oz/yd ²	7.4	ASTM D3776
Ball Burst, lbf	79	ASTM D3787
Trapezoidal Tear, MD, lbf	26	ASTM D5733
Trapezoidal Tear, CD, lbf	22	ASTM D5733
Breaking Strength, Grab (MD), lbf	84	ASTM D5034
Breaking Strength, Grab (CD), lbf	83	ASTM D5034

These results are measured using the latest ASTM test methods. Results will vary due to the changes in test methods. A true test of performance is *in use*.

Chemical Warfare Agents

Agent	Breakthrough Time, hr	Minimum Detectable Permeation Rate, µg/cm ² /min
HD, Sulfur Mustard	>12	4.2 x 10 ⁻⁷
L, Lewisite	>12	2.5 x 10 ⁻⁵
GB, Sarin	>12	4.2 x 10 ⁻⁷
VX	>12	4.2 x 10 ⁻⁷
GD, Soman	>12	4.2 x 10 ⁻⁷
GA Tabun	>12	8 x 10 ⁻⁷

Applied at 10 g/m² in 1 µl drops at 22°C, 50% RH

Permeation Data for ASTM Recommended List of Chemicals for Evaluating Protective Clothing Materials (ASTM F1001)

Chemical Name	Physical Phase	Average Normalized Breakthrough Time, min	Average Permeation Rate, µg/cm ² /min
Acetone	L	>480	<0.001
Acetonitrile	L	>480	<0.0003
Ammonia	G	47	0.62
1,3-Butadiene	G	>480	<0.001
Carbon disulfide	L	>480	<0.001
Chlorine	G	>480	<0.01
Dichloromethane	L	432	0.06
Diethylamine	L	>480	<0.001
N,N-Dimethylformamide	L	>480	<0.001
Ethyl acetate	L	>480	<0.001
Ethylene oxide	G	>480	<0.01
n-Hexane	L	>480	<0.001
Hydrogen chloride	G	>480	<0.1
Methanol	L	158	0.81
Methyl chloride	G	>480	<0.001
Nitrobenzene	L	>480	<0.001
Sodium hydroxide, 50%	L	>480	<0.01
Sulfuric acid, 98%	L	>480	<0.01
Tetrachloroethylene	L	>480	<0.001
Tetrahydrofuran	L	>480	<0.001
Toluene	L	>480	<0.001

Index of Codes:

> = greater than, < = less than, **L** = liquid, **G** = gas, **immed.** = immediate (<10 minutes)

Numbers reported are averages of samples tested by the ASTM F739 test method. Sample results do vary and therefore averages for these results are reported.

DuPont Personal Protection

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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 permeation rates than the fabric. Please contact the garment manufacturer for specific data. If fabric becomes torn, abraded or punctured, end user should discontinue use of garment to avoid potential exposure to chemical. SINCE CONDITIONS OF USE ARE OUTSIDE OUR CONTROL, WE MAKE NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE AND ASSUME NO LIABILITY WHATSOEVER IN CONNECTION WITH ANY USE OF THIS INFORMATION.

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WARNINGS: 1) Tychem® BR is not flame-resistant and should not be used around heat, flame, sparks or in potentially flammable or explosive environments. 2) Garments made of Tychem® BR should have slip-resistant or antislip materials on the outer surface of boots, shoe covers or other garment surfaces in conditions where slipping could occur.

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