PORON® Urethanes

CHEMICAL RESISTANCE DATA SHEET

PORON® Urethane materials provide design solutions for applications in Transportation, Communication, and Industrial markets. The following chemical resistance information, when used with the typical physical properties for each material, is provided to assist in assessing suitability for each application.

Tensile Strength & Dimensional Stability (% Change)

1: 0-20 | 2: 20-40 | 3: 40-60 | 4: 60-80 | 5: 80-100

Compression Set (%)

1: 0-10 | 2: 10-20 | 3: 20-30 | 4: 30-40 | 5: 40-50

Little to No Interaction —— Not Recommended

	TENSILE STRENGTH								DIMENSIONAL STABILITY								COMPRESSION SET			
	WET				DRY				WET				DRY				DRY			
SOLVENT MEDIUM	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**	**A**	**B**	**C**	**D**
Acids and Bases																				
10% Ammonia Water	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
10% Acetic Acid	2	3	3	3	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	3
10% Hydrochloric Acid	1	2	2	3	1	2	1	3	1	1	1	1	1	1	1	1	1	1	2	4
10% Potassium Hydroxide	2	1	1	2	5	1	1	1	1	1	1	1	5	1	1	1	5	2	1	2
10% Sodium Bicarbonate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10% Sulfuric Acid	2	1	1	5	1	1	1	5	1	5	1	1	1	1	1	1	3	1	1	3
Organic Fluids																				
Acetone	5	5	5	5	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1
Isopropyl Alcohol	4	5	5	5	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	4
Methanol	4	5	5	5	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1
Automotive Fluids																				
Brake Fluid	4	5	5	5	4	5	5	5	2	2	2	2	1	2	1	1	1	1	1	1
Coolant (50% Ethylene Glycol)	1	2	3	3	1	2	2	3	1	1	1	1	1	1	1	1	1	1	1	4
Dimethylcarbonate	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Gasoline	4	4	4	4	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	4
Motor Oil	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Power Steering Fluid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Transmission Fluid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Windshield Washer Fluid	2	2	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Miscellaneous																				
Bleach	1	2	2	3	2	1	3	4	1	1	1	1	1	1	1	1	3	2	2	2
Distilled Water	1	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3% Hydrogen Peroxide	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

		THICKNESS	
CHART DESCRIPTION	**PORON® URETHANE**	**inches**	**mm**
A	4710-30	0.125	3.18
B	4710-40	0.125	3.18
C	4710-50	0.125	3.18
D	4710-60	0.125	3.18

All listed values are typical. Typical values are a representation of an average value of the property for a given population of the product. For specification values contact Rogers Corporation.

TEST METHOD:

Immersion duration for 168 hours (1 week), at room temperature, followed by 48 hours (2 days) drying. Material properties evaluated were tensile strength, dimensional stability and compression set resistance. Please refer to the Industrial Materials Physical Properties data sheet for specific test methods.

RESULTS:

In general, PORON® Urethane materials show excellent or very good resistance when exposed to dilute acids and bases, organic fluids and petroleum products. When wet, the materials exhibit swelling and a reduction in properties.

For additional product and design recommendations, please contact your Rogers Sales Engineer.

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