ROGERS CORPORATION

PORON® Cellular Urethane Foams

High Performance Foams Division
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Solvent Resistance Data Sheet

PORON® materials are used in applications ranging from transportation and communications to industrial, medical and consumer products. 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.

RATING KEY	1	2	3	4	5
Tensile Strength & Dimensional Stability **(% Change)**	0-20	20-40	40-60	60-80	80-100
Compression Set **(% Actual)**	0-10	10-20	20-30	30-40	40- 50

	PORON[a] Urethane 4701-30-20125					PORON[O] Urethane 4701-40-20125				
	Tensile Strength		Dimensional Stability		Compression Set	Tensile Strength		Dimensional Stability		Compression Set
SOLVENT MEDIUM	**Wet**	**Dry**	**Wet**	**Dry**	**Dry**	**Wet**	**Dry**	**Wet**	**Dry**	**Dry**
ACIDS & BASES										
10% Ammonia Water	1	1	1	1	1	2	1	1	1	1
10% Acetic Acid	2	1	1	1	1	3	1	1	1	1
10% Citric Acid	1	1	1	1	1	2	1	1	1	1
10% Hydrochloric Acid	1	1	1	1	1	2	2	1	1	1
10% Nitric Acid	4	5	1	5	5	3	4	1	1	5
10% Phosphoric Acid	1	2	1	1	3	1	1	1	1	1
10% Potassium Hydroxide	2	5	1	5	5	1	1	1	1	2
10% Sodium Bicarbonate	1	1	1	1	1	1	1	1	1	1
10% Sodium Hydroxide	1	5	1	5	5	1	1	1	1	1
10% Sulfuric Acid	2	1	1	1	3	1	1	5	1	1
ORGANIC FLUIDS										
Acetone	5	1	2	1	1	5	1	2	1	1
Carbon Tetrachloride	4	1	2	1	1	4	1	2	1	1
Diethyl Amine	3	1	2	1	1	4	1	1	1	1
Diethyl Ether	4	1	2	1	1	5	1	2	1	1
Ethyl Acetate	5	1	3	1	1	5	2	1	1	1
Hexane	3	1	1	1	1	3	1	1	1	1
Isopropyl Alcohol	4	1	1	1	1	5	1	1	1	1
Methanol	4	1	2	1	1	5	1	1	1	1
Methyl Ethyl Ketone	4	1	3	1	1	5	1	3	1	1
Methylene Chloride	5	1	5	5	5	5	1	3	1	1
Tetrahydrofuran	5	5	4	1	1	5	1	5	5	1
Toluene	4	1	3	1	1	5	1	2	1	1
Trichloroethylene	5	1	3	1	1	5	1	2	1	1
Xylene	4	1	2	1	1	5	1	2	1	1
AUTOMOTIVE FLUIDS										
Anti-freeze	1	1	1	1	1	2	2	1	1	1
Brake Fluid	4	4	2	1	1	5	5	2	2	1
Diesel Fuel	2	2	1	1	1	3	2	1	1	1
Freon 113	2	2	1	1	1	2	1	1	1	1
Gasoline	4	1	1	1	1	4	2	1	1	1
Iso-octane	1	1	1	1	1	2	1	1	1	1
Kerosene	2	1	1	1	1	3	2	1	1	1
Motor Oil	4	1	1	1	1	1	1	1	1	1
Synthetic Oil	1	1	1	1	1	1	1	1	1	1
Windshield Washer Fluid	2	1	1	1	1	2	1	1	1	1
MISCELLANEOUS										
Bleach	1	2	1	1	3	2	1	1	1	2
Distilled Water	1	1	1	1	1	2	1	1	1	1
3% Hydrogen Peroxide	2	1	1	1	1	2	1	1	1	1
Mineral Spirits	2	1	1	1	1	2	1	1	1	1
Naphtha	2	1	1	1	1	3	1	1	1	1
Salad Oil	4	1	1	1	1	1	1	1	1	1
Sea Water	1	2	1	1	1	1	1	1	1	1

Solvent Resistance Data Sheet Continued

RATING KEY	1	2	3	4	5
Tensile Strength & Dimensional Stability **(% Change)**	0-20	20-40	40-60	60-80	80-100
Compression Set **(% Actual)**	0-10	10-20	20-30	30-40	40- 50

	PORON[a] Urethane 4701-50-20125					PORON[◊] Urethane 4701-60-20125				
	Tensile Strength		Dimensional Stability		Compression Set	Tensile Strength		Dimensional Stability		Compression Set
SOLVENT MEDIUM	**Wet**	**Dry**	**Wet**	**Dry**	**Dry**	**Wet**	**Dry**	**Wet**	**Dry**	**Dry**
ACIDS & BASES										
10% Ammonia Water	1	1	1	1	1	2	1	1	1	2
10% Acetic Acid	3	1	1	1	1	3	3	1	1	3
10% Citric Acid	2	2	1	1	1	5	5	1	1	3
10% Hydrochloric Acid	2	1	1	1	2	3	3	1	1	4
10% Nitric Acid	4	4	1	1	5	5	5	1	1	5
10% Phosphoric Acid	1	1	1	1	1	5	5	1	1	3
10% Potassium Hydroxide	1	1	1	1	1	2	1	1	1	2
10% Sodium Bicarbonate	1	1	1	1	1	1	1	1	1	1
10% Sodium Hydroxide	1	1	1	1	1	1	1	1	1	1
10% Sulfuric Acid	1	1	1	1	1	5	5	1	1	3
ORGANIC FLUIDS										
Acetone	5	1	2	1	1	5	1	2	1	1
Carbon Tetrachloride	4	1	2	1	1	4	1	1	1	1
Diethyl Amine	4	1	1	1	1	3	3	1	1	3
Diethyl Ether	5	1	1	1	1	5	1	1	1	1
Ethyl Acetate	5	1	2	1	1	4	4	2	1	3
Hexane	3	1	1	1	1	3	2	1	1	3
Isopropyl Alcohol	5	1	1	1	1	5	2	1	1	4
Methanol	5	1	1	1	1	5	1	2	1	1
Methyl Ethyl Ketone	5	1	3	1	1	5	2	2	1	4
Methylene Chloride	5	1	3	1	1	5	2	2	1	3
Tetrahydrofuran	5	1	3	1	1	5	5	3	1	3
Toluene	5	1	2	1	1	5	2	1	1	4
Trichloroethylene	5	1	2	1	1	5	5	2	1	3
Xylene	5	1	2	1	1	5	2	1	1	4
AUTOMOTIVE FLUIDS										
Anti-freeze	3	2	1	1	1	3	3	1	1	4
Brake Fluid	5	5	2	1	1	5	5	2	1	1
Diesel Fuel	2	2	1	1	1	3	2	1	1	1
Freon 113	2	1	1	1	1	2	1	1	1	2
Gasoline	4	1	1	1	1	4	2	1	1	4
Iso-octane	1	1	1	1	1	1	1	1	1	2
Kerosene	3	2	1	1	1	2	1	1	1	1
Motor Oil	1	1	1	1	1	1	1	1	1	1
Synthetic Oil	2	1	1	1	1	1	1	1	1	1
Windshield Washer	2	1	1	1	1	4	1	1	1	1
MISCELLANEOUS										
Bleach	2	3	1	1	2	3	4	1	1	2
Distilled Water	1	1	1	1	1	3	1	1	1	2
3% Hydrogen Peroxide	2	1	1	1	1	2	1	1	1	1
Mineral Spirits	2	1	1	1	1	2	1	1	1	1
Naphtha	3	1	1	1	1	2	1	1	1	1
Salad Oil	1	1	1	1	1	3	4	1	1	2
Sea Water	1	1	1	1	1	2	1	1	1	1

***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 to exposure to dilute acids and bases, organic fluids and petroleum products. When wet, the materials exhibit swelling and a reduction in properties.

Printed in U.S.A 0331-0702-25C
Publication #17-069 U.S.