

## Rogers Corporation Poron® 4701-50 Supported Urethane Foam, Firm, PET Supported

Category : Polymer , Thermoset , Polyurethane, TS , Thermoset Polyurethane Foam, Unreinforced

### Material Notes:

Firm material used for managing high energy impact with gasketing needs. Standard available thickness range from 0.012" to 0.500" (0.30 mm to 12.7 mm). Features and Benefits of PORON Products: Excellent compression set resistance which enables durable, long-term performance for gasketing, sealing, and cushioning. Low-outgassing and non-fogging, containing no plasticizers or residual chemicals to contaminate the device. The material will not become brittle and crumble and is non-corrosive to metal. Inherently flame retardant without the use of additives. Many of the materials meet flammability requirements of UL HBF and MVSS 302. Engineered urethane formulations offering a wide modulus range - 2-90 psi @ 25% deflection – for more design versatility requirements. Good chemical resistance. Easy to fabricate, die-cuts cleanly and works with a broad range of adhesives. Broad range of formulas and thicknesses from 0.012" to 0.500" (0.43mm to 12.7mm). Applications:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Rogers-Corporation-Poron-4701-50-Supported-Urethane-Foam-Firm-PET-Supported.php](http://www.lookpolymers.com/polymer_Rogers-Corporation-Poron-4701-50-Supported-Urethane-Foam-Firm-PET-Supported.php)

Physical Properties	Metric	English	Comments
Density	0.481 g/cc	0.0174 lb/in <sup>3</sup>	ASTM D3574-95 Test A
	1.395 g/cc	0.05040 lb/in <sup>3</sup>	Supporting Material; ASTM D1505
Water Absorption	5.0 %	5.0 %	Immersion; ASTM D570-95
Moisture Absorption at Equilibrium	2.0 %	2.0 %	High Humidity; AMS 3568-95
Thickness	305 microns	12.0 mil	
Outgassing - Total Mass Loss	0.060 %	0.060 %	CVCM; at 7000 Pa; ASTM E595-93
	@Temperature 125 °C, Time 86400 sec	@Temperature 257 °F, Time 24.0 hour	
	0.43 %	0.43 %	
	@Temperature 125 °C, Time 86400 sec	@Temperature 257 °F, Time 24.0 hour	WVR; at 7000 Pa; ASTM E595-93
	0.90 %	0.90 %	TML; at 7000 Pa; ASTM E595-93
	@Temperature 125 °C, Time 86400 sec	@Temperature 257 °F, Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Hardness, Shore O	55	55	ASTM D2240-97
Tensile Strength	207 MPa	30000 psi	MD, supporting material; ASTM D882
Tensile Strength, Yield	103 MPa	15000 psi	F5, supporting material; ASTM D882

Mechanical Properties	Metric	English	Comments
Tensile Modulus	3.45 GPa	500 ksi	MD, supporting material; ASTM D882
Compressive Yield Strength	0.103 - 0.310 MPa	15.0 - 45.0 psi	Range, 0.2"/min. strain rate
	@Strain 25.0 %	@Strain 25.0 %	
	0.221 MPa	32.0 psi	Typical value, 0.2"/min. strain rate
	@Strain 25.0 %	@Strain 25.0 %	
Coefficient of Friction, Dynamic	0.40	0.40	A/B, supporting material; ASTM D1894
Compression Set	5.0 %	5.0 %	ASTM D1667-90 Test D
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	10 %	10 %	ASTM D3574-95 Test D
	@Temperature 70.0 °C	@Temperature 158 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	230 - 310 µm/m-°C	128 - 172 µin/in-°F	
Thermal Conductivity	0.0900 W/m-K	0.625 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C518-98
Maximum Service Temperature, Air	70.0 °C	158 °F	Constant use; SAE J-2236
	121 °C	250 °F	Intermittent use; ASTM D746-98
Brittleness Temperature	-40.0 °C	-40.0 °F	ASTM D746-98
Shrinkage, MD	1.2 %	1.2 %	supporting material
	@Temperature 150 °C, Time 2340 sec	@Temperature 302 °F, Time 0.650 hour	
Shrinkage, TD	0.00 %	0.00 %	supporting material
	@Temperature 150 °C, Time 2340 sec	@Temperature 302 °F, Time 0.650 hour	

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+12 ohm-cm	2.00e+12 ohm-cm	ASTM D257-99
Dielectric Constant	1.63	1.63	50% RH; ASTM D150
	@Time 86400 sec	@Time 24.0 hour	
Dielectric Strength	1.97 kV/mm	50.0 kV/in	ASTM D149-97a
Dissipation Factor	0.050	0.050	ASTM D150-98

## **Contact Songhan Plastic Technology Co.,Ltd.**

**Website : [www.lookpolymers.com](http://www.lookpolymers.com)**

**Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)**

**Tel : +86 021-51131842**

**Mobile : +86 13061808058**

**Skype : lookpolymers**

**Address : United North Road 215,Fengxian District, Shanghai City,China**