PORON® Polyurethanes

Material Selection Guide For Industrial Applications

ROGERS CORPORATION

Helping power, protect, connect our world™

Pocket folder

ROGERS CORPORATION

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FPO BIZ CARD

PORON® Polyurethane foams ensure reliability where cushioning, sealing, impact protection or energy management are critical to product performance.

Resistance to Stress Relaxation and Compression Set
Durable, long-term performance for gasketing, sealing and cushioning

Energy Absorption
High resiliency, good vibration isolation and impact absorption

Low Outgassing
No plasticizers to migrate, non-corrosive to metal, environmentally safe and clean

Broad Temperature Range
Reliable performance from -40°C to 90°C

Chemical Resistance
Information is available on material exposure to acids, bases, organic fluids, automotive fluids and household fluids

Flame Retardant
Many of the materials meet flammability requirements of UL HBF and MVSS 302

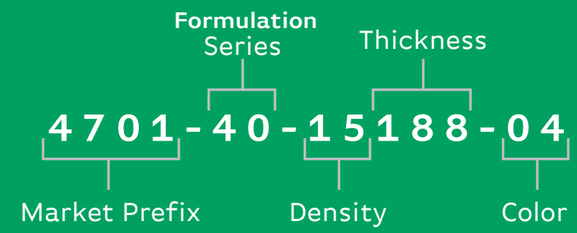
Easy to Fabricate
Die-cuts cleanly and readily accepts adhesive without surface preparation

Product Consistency
Quality manufacturing resulting in reliable, consistent material properties

Broad Product Offering
Wide range of firmness, density, thickness and color options available

Quality Service
All products are supported by knowledgeable Rogers Sales and Applications Engineers, Technical Service and Customer Service Representatives

Product Description Chart



Applications

Environmental Seals

Protective Cases

Water Sealing

Spacers

Motor Mounts

Vibration Isolation

Springs

Cup Holder Tabs

Gaskets

Appliance Foot Pads

EMI/RFI Shielding

Sound Damping

Gap Filling

And More

Markets

Appliance

Automotive

Clean Technology

HVAC

Medical Device

Enclosures

And More

Unsupported PORON® Polyurethanes

4790-92
Extra Soft–Slow Rebound

4701-30
Very Soft

4701-40
Soft

4701-41
Soft – Enhanced Sealability

4701-50
Firm

4701-60
Very Firm

4790-79
ShockSeal™

Supported PORON® Polyurethanes

4701-30
Dura-Shape™

PORON® materials are available with a tough polyester film securely bonded between two layers of foam. This "sandwich" technology results in a foam product with:

- Increased dimensional stability - no shrinkage or stretching
- Tougher tear strength
- Reliable, long-term shape retention

4790-92
Extra Soft–Slow Rebound

4701-30
Very Soft

PET Film Data (Carrier)

Property	Test Method	Value
Coefficient of Friction A/B, (Kinetic)	ASTM D 1894	0.40
Density, g/cm³	ASTM D 1505	1.395
Modules, MD, psi (kg/cm²)	ASTM D 882	500,000 (35,200)
Shrinkage, MD, %, (TD)	39 min. at 150C	1.2 (0.0)
Tensile Strength, MD, psi (kg/cm²)	ASTM D 882	30,000 (2,110)
Ultimate Elongation	ASTM D 882	150
Yield Strength (F5), psi (kg/cm²)	ASTM D 882	15,000 (1,050)

Standard Product Availability

Product																															
Thickness		4790-92						4790-79				4701-30			4701-40			4701-41			4701-50				4701-60					
IN	MM	9 pcf	12 pcf	15 pcf	20 pcf	25 pcf	30 pcf	9 pcf	12 pcf	15 pcf	20 pcf	15 pcf	20 pcf	25 pcf	15 pcf	20 pcf	30 pcf	15 pcf	20 pcf	30 pcf	15 pcf	20 pcf	25 pcf	30 pcf	15 pcf	20 pcf	25 pcf	30 pcf			
0.012	0.30						●																	●						
0.017	0.43					▲	▲																	●						
0.020	0.51	●	●			▲		▲	▲					▲										●						
0.021	0.53	▲	▲			●		●	●					●										▲						
0.024	0.61	▲	▲			●		▲	▲					▲																
0.030	0.75	●	●			▲		●	●					▲										▲						
0.031	0.79	▲	▲			●		▲	▲					●			●			●			▲	●			●	●		
0.035	0.89	▲	▲			▲		▲	▲					●			▲			▲			▲	▲			▲	▲		
0.037	0.94	▲	▲			▲		▲	▲					●			▲			▲			▲	▲			▲	▲		
0.039	1.00	●	●	●		▲		●	●					▲			▲			▲			▲	▲			▲	▲		
0.041	1.04	▲	▲	▲	▲	●		▲						▲			▲			▲			▲	▲			▲	▲		
0.045	1.14		▲	▲	▲	▲		▲						●			●			●			▲	●			▲	▲		
0.047	1.19		▲	▲	▲	▲		▲						●			▲						▲	▲			▲	▲		
0.049	1.25		●	▲	▲	▲		▲						▲			▲						▲	▲			▲	▲		
0.059	1.50		●	▲	▲									▲		▲	▲		▲			▲	▲	▲	▲	▲	▲	▲		
0.062	1.57		▲	▲	▲						●	▲	●	▲		●	▲		●			●	▲	▲	▲	●	●	▲		
0.064	1.63		▲	▲	▲						▲	▲	●	▲		▲	▲		▲			▲		▲	▲	▲	▲	▲		
0.081	2.06		▲	▲	●						▲	▲	▲	▲		▲			▲			▲			▲	▲	▲			
0.093	2.36			▲	▲						●	▲	●	▲		●			●			●			▲	▲	●			
0.095	2.41			▲	▲						▲	▲	●	▲		▲			▲			▲			▲	▲	▲			
0.120	3.05			●	▲						▲	▲	▲	▲		▲			▲			▲			▲	▲	▲			
0.125	3.18		▲	●	▲					●	▲	▲	●	▲	▲	●		▲	●		▲	●			▲	●	▲			
0.155	3.94		●	▲	▲					▲	▲	▲	▲		▲	▲		▲	▲		▲	▲			▲	▲	▲			
0.188	4.78		▲	●	▲					▲	▲	●	▲		●	▲		●	▲		●	▲			●	●				
0.250	6.35		▲	●	▲				▲	●		●	▲		●	▲		●	▲		●	▲			●	▲				
0.375	9.53		●	●					●	▲		●			●	▲		●			●	▲								
0.425	10.80		▲	▲						▲		▲			▲	▲		▲			▲	▲								
0.500	12.70		▲	●						▲		●			●	▲		●			●	▲								

Table Legend: ● Standard Product ▲ Non-Standard Product _ Supported Product w/ 2mil PET Product Not Available

Dura-Shape Product

Thickness		4790-92, Py2mid		4701-30, Py2mid		4701-40, Py2mid		4701-41, Py2mid		4701-50, Py2mid	
IN	MM	15 Pcf	20 Pcf	15 Pcf	20 Pcf	15 Pcf	20 Pcf	15 Pcf	20 Pcf	15 Pcf	20 Pcf
0.062	1.57										
0.064	1.63										
0.081	2.06										
0.093	2.36	◆	◗	◆	◗	◆	◗	◆	◗	◆	◗
0.095	2.41	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
0.120	3.05	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
0.125	3.18	◗	◗	◆	◗	◆	◗	◆	◗	◆	◗
0.155	3.94	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
0.188	4.78	◗	◆	◗	◆	◆	◆	◗	◆	◗	◆
0.250	6.35	◗	◆	◗	◆	◗	◆	◆	◆	◆	◆
0.375	9.53	◗	◆	◗	◆	◗	◆	◆	◆	◆	◆
0.425	10.8	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
0.500	12.7	◗	◆	◗	◆	◗	◆	◗	◆	◗	◆

Table Legend: ◆ Non-standard Supported Product W/ 2mil PET In The Middle — Product Not Available — ◗ Standard Supported Product W/ 2mil PET In The Middle

PORON® Polyurethanes

Unsupported (No PET)

Product	Typical Physical Properties: Density: lb./ft³ (kg / m³), **Tolerance %** ASTM D 3574 Test A	Typical Physical Properties: Thickness: inches (mm), **Tolerance %**	Typical Physical Properties: Standard Color (Code)	Typical Physical Properties: Compression Force Deflection: Range psi (kPa), Typical† **psi (kPa)*** 0.2"/min. Strain Rate Force @ 25% Deflection	Typical Physical Properties: Hardness / Durometer: Shore "O", **Shore "A"** ASTM D 2240	Typical Physical Properties: Compression Set: % max, **Typical† %** ASTM D 3574 Test D @158°F (70°C)	Typical Physical Properties: Compression Set: % max, **Typical† %** ASTM D 3574 Test J / Test D after autoclaved 5 hrs. @ 250°F (120°C)	Typical Physical Properties: Dimensional Stability: % max. change 22 hrs. @176°F (80°C) in a forced air oven	Typical Physical Properties: Tensile Strength: Min. psi (kPa), **Typical† psi (kPa)**, ASTM D 3574 Test E	Typical Physical Properties: Tensile Elongation: % Min., **Typical† %**, ASTM D 3574	Typical Physical Properties: Tear Strength: Min. pli (kN/m), **Typical† pli (kN/m)** ASTM D 624 Die C	Electrical & Thermal: Dielectric Constant: K' ("DK"), ASTM D, 150 measurements @ 72°F (22°C) relative humidity 50% for 24 hours.	Electrical & Thermal: Dielectric Strength: Typical† Volts/mil, ASTM D 149	Electrical & Thermal: Dissipation Factor: Tan D ("DF"), ASTM D 150	Electrical & Thermal: Volume Resistivity: ohm-cm, ASTM D 257	Electrical & Thermal: Surface Resistivity: ohm/sq., ASTM D 257	Electrical & Thermal: Thermal Conductivity: W/mK (BTU-in/hr-ft²-F), ASTM C 518	Electrical & Thermal: Coefficient of Thermal Expansion from -30°C to 100°C (in./in./°C) ASTM E831	Temperature Resistance: Temperature Resistance: Recommended Constant Use - max, SAE J-2236	Temperature Resistance: Temperature Resistance: Recommended Intermittent Use - max, ASTM D 746	Temperature Resistance: Temperature Resistance: Embrittlement, ASTM D 746	Temperature Resistance: Temperature Resistance: Cold Flexibility, MIL-P-12420 D @ -40°F (-40°C)	Flammability & Outgassing: Flame Resistance Thickness (Pass≥): UL HBF (UL 94 and UL 746A(or)UL746CCSA, following C22.2 No. 0.17.00) **FMVSS 302 (Pass, ≥)**, GM3232 (Pass≥)	Flammability & Outgassing: Fogging: SAE J-1756 3 hrs @ 212°F (100°C)	Flammability & Outgassing: Outgassing: Total Mass Loss (TML) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10⁻³ Pa	Flammability & Outgassing: Outgassing: Collected Volatile Condensable Materials (CVCM) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10⁻³ Pa	Flammability & Outgassing: Outgassing: Collected Volatile Condensable Materials (CVCM) mg, GMW3235 Code B Condensible Constituent	Flammability & Outgassing: Outgassing: Water Vapor Regain (WVR) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10⁻³ Pa	Environmental: Gasketing and Sealing: UL JMST2 (Consisting of UL50 and UL508), **CAN/CSA-C22.2 No. 94-M91**	Environmental: Water Absorption: High Humidity Exposure - Typical† % weight gain, AMS 3568	Environmental: Water Absorption: Immersion Testing - Typical† % weight gain, ASTM D 570	Environmental: UV Resistance: ASTM G 53, Results reported on a scale of 1-10 (1 = best)	Environmental: Ozone Resistance: GM 4486P	Environmental: Corrosion Resistance: Median visual evaluation number, SAE J1389
4790-92 and Dura-Shape Option	12 (192), **± 10**	0.155-0.425 (3.94 - 10.8), **± 10**	Black (04)	0.25-2.5 (1.7-17), **1.4 (10)**	< 3, **NA**	10, **2.0**	5, **0.4**	± 3	12 (83), **21.76 (150)** *	150, **215** *	2 (0.4), **4.28 (0.75)**	NA	80.77	NA	9.33 x 10^{11}	3.76 x 10^{13}	0.063 (0.44)	2.38-2.88 x 10^{-4}	194°F (90°C)	250°F (121°C)	-4°F (-20°C)	NA	0.155" (3.94mm), **0.155" (3.94mm),** 0.155" (3.94mm) **	Pass	0.76	0.04	0.1	0.6	NA	2	38	7	Pass	5
	15 (240), **± 10**	0.125 - 0.500 (3.18 - 12.70), **± 10**		0.3-3.5 (2-24), **2 (14)**	< 5, **NA**	10, **1.6**	5, **0.5**	± 5	15 (103), **24.37 (168)** *	120, **220** *	4 (0.7), **5 (0.9)**	1.48	NA	0.04	8 x 10^{11}	10 x 10^{11}	0.07 (0.49)	2.8-3.1 x 10^{-4}	194°F (90°C)	250°F (121°C)	NA	NA	0.118" (3.00mm), **0.118" (3.00mm),** 0.188" (3.00mm) **		1.73	0.14	0.2	0.71	Pass¹ **	2	34	10	Pass	4
4701-30 and Dura-Shape Option	15 (240), **± 10**	0.188 - 0.500 (4.78 - 12.70), **± 10**	Black (04)	1-5 (7-35), **3 (21)**	< 3, **< 3**	10, **0.9**	5, **0.5**	± 1	20 (137), **34.5 (238)** *	100, **161** *	1 (0.2), **5 (0.9)**	1.75	NA	0.05	3 x 10^{11}	6 x 10^{11}	0.067 (0.46)	2.3-3.1 x 10^{-4}	194°F (90°C)	250°F (121°C)	-60°F (-51°C)	Pass	0.188" (3.00mm), **0.188" (3.00mm),** 0.188" (3.00mm) **	Pass	0.8	0.1	0.1	0.2	Pass² **	2	12	10	Pass	5
	20 (320), **± 10**	0.062 -0.125 (1.57 - 3.18) **± 10**		3-8 (21-55), **5 (35)**	8, **5**	10, **1.7**	5, **0.5**	± 1	30 (205), **47.6 (328)** *	100, **154** *	2 (0.4), **7 (1.2)**	1.75	103.38	0.05	3.19 x 10^{11}	1.27 x 10^{13}	0.079 (0.55)	1.89-2.91 x 10^{-4}	194°F (90°C)	250°F (121°C)	-60°F (-51°C)		0.093" (2.36mm), **0.062" (1.57mm),** 0.062" (1.57mm) **		1	0.1	0.1	0.3		2	9	10		5
4701-40 and Dura-Shape Option	15 (240), **± 10**	0.188 - 0.500 (4.78 - 12.70), **± 10**	Black (04)	4-8 (27-55), **5 (41)**	12, **8**	10, **0.9**	5, **0.5**	± 2.5	40 (275), **66.0 (455)** *	100, **168** *	3 (0.5), **9 (1.6)**	1.71	NA	0.05	1 x 10^{12}	2 x 10^{12}	0.067 (0.46)	2.3-3.1 x 10^{-4}	194°F (90°C)	250°F (121°C)	-40°F (-40°C)	Pass	0.188" (3.00mm), **0.188" (3.00mm),** 0.188" (3.00mm) **	Pass	0.7	0.04	0.04	0.3	Pass² **	2	10	10	Pass	5
	20 (320), **± 10**	0.062 - 0.125 (1.57 - 3.18), **± 10**		7-13 (48-90), **11 (76)**	17, **12**	10, **1.3**	5, **0.6**	± 2.5	75 (518), **83.7 (577)** *	100, **160** *	5 (0.9), **12 (2.1)**	1.71	101.60	0.05	1.96 x 10^{12}	7.05 x 10^{13}	0.08 (0.55)	1.80-2.60 x 10^{-4}	194°F (90°C)	250°F (121°C)	-40°F (-40°C)		0.062" (1.57mm), **0.062" (1.57mm),** 0.062" (1.57mm) **		0.8	0.04	0.04	0.3		2	9	10		6
	30 (480), **± 10**	0.031 - 0.045 (0.79 - 1.14), **± 20**		15-40 (104-276), **25 (173)**	34, **25**	1, **1.5**	5, **0.6**	± 2.5	120 (829), **157.8 (1088)** *	100, **140** *	12 (2.1), **17 (3.0)**	1.71	NA	0.05	1 x 10^{12}	2 x 10^{12}	0.127 (0.88)	2.3-3.1 x 10^{-4}	194°F (90°C)	250°F (121°C)	-40°F (-40°C)		NA, **NA,** 0.045" (1.14mm) **	NA	1.0	0.05	0.1	0.62	NA	NA	NA	NA		6
4701-41 and Dura-Shape Option	15 (240), **± 10**	0.188 - 0.500 (4.78 - 12.7), **± 10**	Black (04)	5-11 (35-76), **9.3 (64)**	18, **NA**	10, **4.7**	5, **0.7**	± 2	40 (276), **67.6 (466)** *	100, **164** *	6 (1.1), **10 (1.8)**	1.71	NA	0.05	1 x 10^{12}	2 x 10^{12}	0.063 (0.44)	2.3-3.1 x 10^{-4}	194°F (90°C)	250°F (121°C)	NA	Pass	0.197" (5.00mm), **NA,** 0.188" (3.00mm) **	NA	0.84	0.05	0.1	0.4	Pass² **	3	15	10	Pass	6
	20 (320), **± 10**	0.062 - 0.125 (1.57 - 3.18), **± 10**		10-17 (69-117), **15 (103)**	24, **NA**	10, **3.8**	5, **0.7**	± 2	75 (517), **91.1 (628)** *	100, **143** *	8 (1.4), **13 (2.3)**	1.71	132.08	0.05	1.16 x 10^{12}	5.17 x 10^{13}	0.08 (0.55)	1.93-3.03 x 10^{-4}	194°F (90°C)	250°F (121°C)	NA		NA, **.125" (3.18mm),** 0.062" (1.57mm) **	NA	0.97	0.04	0.1	0.46		3	13	7		6
	30 (480), **± 10**	0.031 - 0.045 (0.79 - 1.14), **± 20**		15-40 (103-276), **28 (193)**	55, **NA**	10, **5.0**	5, **0.8**	± 2	120 (827), **132.0 (910)** *	100, **138** *	15 (2.6), **18 (3.2)**	1.71	NA	0.05	1 x 10^{12}	2 x 10^{12}	0.12 (0.83)	2.3-3.1 x 10^{-4}	194°F (90°C)	250°F (121°C)	NA		0.045" (1.14mm), **NA,** NA, ***	NA	1.0	0.06	0.1	0.65		3	6	7		6
4701-50 and Dura-Shape Option	15 (240) **± 10**	0.188 - 0.500 (4.78 - 12.70) **± 10**	Black (04)	8-14 (55-97) **10 (69)**	18 **13**	10 **0.5**	5 **0.9**	± 2.5	80 (553) **107.9 (744)** **	100 **157** **	6 (1.1) **12 (2.1)**	1.63	-	0.05	2 x 10^{12}	7 x 10^{12}	0.07 (0.49)	2.3-3.1 x 10^{-4}	194°F (90°C)	250°F (121°C)	-40°F (-40°C)	Pass	0.188" (3.00mm) **0.188" (3.00mm)** 0.188" (3.00mm) ***	Pass	0.6	0.04	0.1	0.1	Pass² ***	2	13	7	Pass	6
	20 (320) **± 10**	0.062 - 0.125 (1.57 - 3.18) **± 10**		13-23 (89-161) **17 (117)**	24 **18**	10 **1.5**	5 **1.2**	± 2.5	120 (827) **153.9 (1061)** **	100 **125** **	10 (1.8) **16 (2.8)**	1.63	66.04	0.05	4.26 x 10^{12}	3.76 x 10^{14}	0.08 (0.55)	1.84-2.09 x 10^{-4}	194°F (90°C)	250°F (121°C)	-40°F (-40°C)		0.062" (1.57mm) **0.062" (1.57mm)** 0.062" (1.57mm) ***		0.8	0.05	0.02	0.3		2	11	7		6

† Typical values are a representation of an average value for the population of the property. For specification values contact Rogers Corporation.

¹ See UL File MH15464 ² See UL File MH15464 & File 188149

* Tensile strength and elongation determined by the PET for Dura-Shape materials. ** NA for Dura-Shape version.

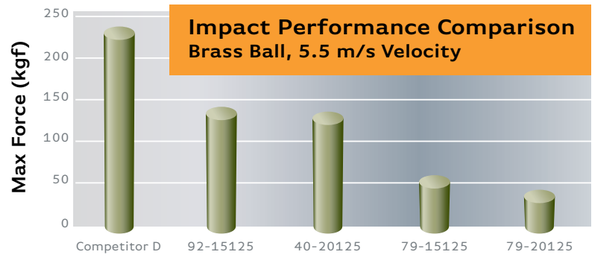
PORON® Polyurethanes

	Product	Typical Physical Properties: Density: lb./ft³ (kg / m³), **Tolerance %** ASTM D 3574 Test A	Typical Physical Properties: Thickness: inches (mm), **Tolerance %**	Typical Physical Properties: Standard Color (Code)	Typical Physical Properties: Compression Force Deflection: Range psi (kPa), **Typical[1] psi (kPa)*** 0.2"/min. Strain Rate Force @ 25% Deflection	Typical Physical Properties: Hardness / Durometer: Shore "O", **Shore "A"** ASTM D 2240	Typical Physical Properties: Compression Set: % max, **Typical[1] %** ASTM D 3574 Test D @158°F (70°C)	Typical Physical Properties: Compression Set: % max, **Typical[1] %** ASTM D 3574 Test J / Test D after autoclaved 5 hrs. @ 250°F (120°C)	Typical Physical Properties: Dimensional Stability: % max. change 22 hrs. @176°F (80°C), in a forced air oven	Typical Physical Properties: Tensile Strength: Min. psi (kPa), **Typical[1] psi (kPa)**, ASTM D 3574 Test E	Typical Physical Properties: Tensile Elongation: % Min., **Typical[1] %**, ASTM D 3574	Typical Physical Properties: Tear Strength: Min. pli (kN/m), **Typical[1] pli (kN/m)**, ASTM D 624 Die C	Electrical & Thermal: Dielectric Constant: K' ("DK"), ASTM D, 150 measurements @ 72°F (22°C) relative humidity 50% for 24 hours.	Electrical & Thermal: Dielectric Strength: Typical[1] Volts/mil, ASTM D 149	Electrical & Thermal: Dissipation Factor: Tan D ("DF"), ASTM D 150	Electrical & Thermal: Volume Resistivity: ohm-cm, ASTM D 257	Electrical & Thermal: Surface Resistivity: ohm/sq., ASTM D 257	Electrical & Thermal: Thermal Conductivity: W/mK (BTU-in/hr-ft²-F), ASTM C 518	Electrical & Thermal: Coefficient of Thermal Expansion from -30°C to 100°C (in./in./°C) ASTM E831	Temperature Resistance: Temperature Resistance: Recommended Constant Use - max, SAE J-2236	Temperature Resistance: Temperature Resistance: Recommended Intermittent Use - max. ASTM D 746	Temperature Resistance: Temperature Resistance: Embrittlement, ASTM D 746	Temperature Resistance: Temperature Resistance: Cold Flexibility, MIL-P-12420 D @ -40°F (-40°C)	Flammability & Outgassing: Flame Resistance Thickness (Pass≥): UL HBF (UL 94 and UL 746A(or)UL746CCSA, following C22.2 No. 0.17.00), **FMVSS 302 (Pass, ≥)**, GM5232 (Pass≥)	Flammability & Outgassing: Fogging: SAE J-1756 3 hrs @ 212°F (100°C)	Flammability & Outgassing: Outgassing: Total Mass Loss (TML) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10⁻⁵ Pa	Flammability & Outgassing: Outgassing: Collected Volatile Condensable Materials (CVCM) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10⁻⁵ Pa	Flammability & Outgassing: Outgassing: Collected Volatile Condensable Materials (CVCM) mg, GMW3235 Code B Condensible Constituent	Flammability & Outgassing: Outgassing: Water Vapor Regain (WVR) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10⁻⁵ Pa	Environmental: Gasketing and Sealing: UL JMST2 (Consisting of UL50 and UL508), **CAN/CSA-C22.2 No. 94-M91**	Environmental: Water Absorption: High Humidity Exposure - Typical[1] % weight gain, AMS 3568	Environmental: Water Absorption: Immersion Testing - Typical[1] % weight gain, ASTM D 570	Environmental: UV Resistance: ASTM G 53, Results reported on a scale of 1-10 (1 = best)	Environmental: Ozone Resistance: GM 4486P	Environmental: Corrosion Resistance: Median visual evaluation number, SAE J1389
Unsupported (No PET)	**4701-60**	15 (240), **± 10**	0.125 - 0.250 (3.18 - 6.35), **± 10**	Black (04)	18-50 (124-345), **36 (249)**	42, **30**	10, **5.1**	10, **9.0**	± 5	149 (1030), **189.1 (1304)**	50, **86**	12 (2.0), **19 (3.3)**	1.60	NA	0.05	7 x 10^{12}	3 x 10^{12}	0.06 (0.42)	2.3-3.1 x 10^{-4}	158°F (70°C)	250°F (121°C)	3°F (-16°C)	Pass	0.125" (3.18mm), **0.125" (3.18mm),** 0.125" (3.18mm)	Pass	0.6	0.05	0.03	0.5	Pass[2]	2	19	7	Pass	5
		20 (320), **± 10**	0.031 - 0.188 (0.79 - 4.78), **± 10**		25-85 (172-586), **62 (428)**	55, **42**	10, **6.5**	10, **9.3**	± 5	200 (1380), **275.0 (1896)**	50, **91**	14 (2.5), **25 (4.4)**	1.60	58.42	0.05	1.83 x 10^{13}	2.35 x 10^{14}	0.07 (0.49)	2.31-2.92 x 10^{-4}	158°F (70°C)	250°F (121°C)	3°F (-16°C)		0.062" (1.57mm), **0.062" (1.57mm),** 0.062" (1.57mm)		0.7	0.02	0.03	0.5		2	20	5		6
		25 (400), **± 10**	0.031 - 0.093 (0.79 - 2.36), **± 15**		50-130 (345-896), **93 (643)**	63, **53**	10, **7.4**	10, **9.3**	± 5	250 (1725), **362.2 (2497)**	50, **86**	20 (3.5), **30 (5.3)**	1.60	NA	0.05	7 x 10^{12}	3 x 10^{12}	0.09 (0.62)	2.3-3.1 x 10^{-4}	158°F (70°C)	250°F (121°C)	3°F (-16°C)		NA, **0.062" (1.57mm),** 0.062" (1.57mm)		0.7	0.03	0.02	0.6		2	6	5		6
	4790-79	12 (192), **± 10**	0.250-0.375 (6.35-9.53), **± 10**	Black (04)	1 - 5 (7 - 35), **NA (NA)**	NA, **NA**	10, **NA**	NA, 1.0	NA	30 (207), **63.2 (436)**	145, **225**	5 (.9), **12 (2.1)**	NA	NA	NA	NA	NA	0.057 (0.40)	NA	NA	NA	-40.9°F (-40.5°C)	NA	In Testing	NA	0.53-0.67	0.03-0.05	0.2	0.30-0.35	Pass[1]	NA	10	NA	NA	5
		15 (240), **± 10**	0.125-0.500 (3.18-12.70), **± 10**		2 - 10 (14 - 69), **NA (NA)**	NA, **NA**	10, **1.9**	NA, 2.2	NA	60 (414), **104.9 (723)**	145, **200**	6 (1.1), **18 (3.3)**	NA	NA	NA	NA	NA	0.071 (0.49)	NA	NA	NA	-58°F (-50°C)	NA	0.125" (3.18mm), **0.080" (2.03),** 0.125" (3.18mm)	NA	0.58-0.74	0.03-0.04	0.1	0.32-0.42		NA	10	NA	NA	6
		20 (320), **± 10**	0.062-0.188 (1.57-4.78), **± 10**		4 - 16 (28 - 110), **NA (NA)**	NA, **NA**	10, **2.1**	NA, 1.8	NA	100 (689), **146.5 (1010)**	145, **180**	10 (1.8), **22 (3.9)**	NA	NA	NA	NA	NA	0.083 (0.58)	NA	NA	NA	6.8°F (-14°C)	NA	0.062" (1.57mm), **0.062" (1.57mm),** 0.062" (1.57mm)	NA	0.67-0.77	0.03-0.04	0.05	0.35-0.47		NA	10	NA	NA	6
PET Supported	**4790-92**	15 (240), **±2 (32)**	0.039 - 0.120 (1.00-3.05), **± 10**	Black (04)	0.3-3.5 (2-24), **1.7 (12)**	2, **NA**	10, **1.7**	NA, **1.6**	NA	NA	NA	NA	1.48	NA	0.04	8 x 10^{11}	8 x 10^{11}	0.075 (0.52)	2.3-3.1 x 10^{-4}	158°F (70°C)	250°F (121°C)	-4°F (-20°C)	Pass	0.120" (3.05mm), **NA,** 0.120" (3.05mm)	Pass	1.73	0.14	0.1	0.71	NA	2	25	1	Pass	6
		20 (320), **± 10**	0.081 (2.06), **± 10**		1-5 (7-35), **3.2 (22)**	NA, **NA**	10, **1.6**	NA, **1.2**	NA	NA	NA	NA	1.48	NA	0.04	10 x 10^{11}	10 x 10^{11}	0.095 (0.66)	2.3-3.1 x 10^{-4}	158°F (70°C)	250°F (121°C)	0°F (-18°C)		0.081" (2.06mm), **NA,** 0.081" (2.06mm)		1.63	0.29	0.1	0.49		2	23	1		6
	4701-30	20 (320), **± 10**	0.064 - 0.095 (1.63 - 2.36), **± 10**	Black (04)	3-8 (21-55), **5.0 (34)**	8, **NA**	10, **1.7**	NA, **0.5**	NA	NA	NA	NA	1.75	NA	0.05	3.1 x 10^{11}	5.9 x 10^{11}	0.086 (0.60)	2.3-3.1 x 10^{-4}	158°F (70°C)	250°F (121°C)	-60°F (-51°C)	Pass	NA, **NA,** 0.095"(2.41mm)	Pass	1.0	0.1	0.04	0.3	Pass[2]	2	9	2	Pass	6

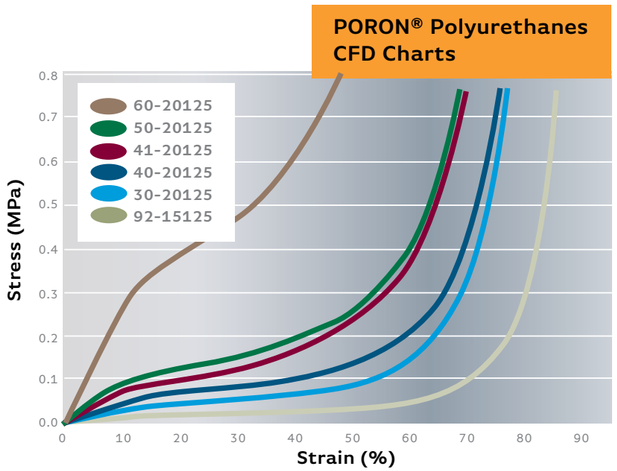
† Typical values are a representation of an average value for the population of the property. For specification values contact Rogers Corporation.

[1] See UL File MH15464 [2] See UL File MH15464 & File 188149

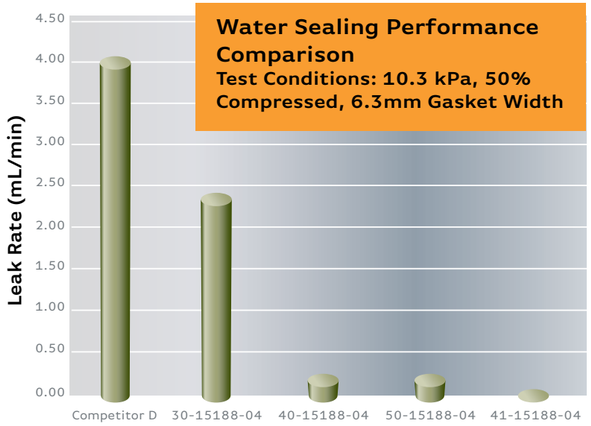
Performance Data



The Rogers High Performance Foams Impact Prediction Tool
This tool was developed to help you choose the best PORON® Polyurethane or BISCO® Silicone materials for energy absorbing applications.



The PORON Polyurethanes Gap Filling Tool
This tool will assist you in identifying the proper PORON® foams for all of your gap filling applications.



The Rogers High Performance Foams Online Material Selection Guide Tool

This tool will assist you in identifying the proper PORON® Polyurethane and BISCO® Silicone materials that best meet your numerous design requirements. The purpose of the tool is to provide several material options based upon your application requirements.

Click the Design Tools tab on the Elastomeric Material Solutions page at rogerscorp.com/ems

For additional information not found in the Rogers Online Tools, please contact your local Sales Engineer!

Typical Industrial Application: Hybrid Electric Vehicle

World Class Performance

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For more information on PORON® Urethanes visit www.rogerscorp.com

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