

PORON® Urethanes



Material Selection Guide For Industrial Applications



The world runs better with Rogers.®



Pocket folder



www.rogerscorp.com

FPO BIZ CARD

PORON® Urethane 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

Applications

Environmental Seals

Protective Cases

Water Sealing

Spacers

Motor Mounts

Vibration Isolation

Springs

Cup Holder Tabs

Gaskets

Appliance Foot Pads

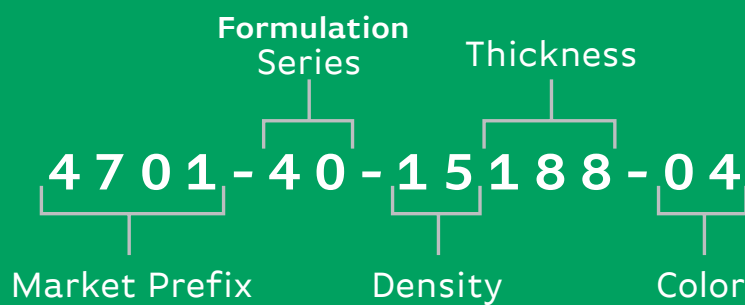
EMI/RFI Shielding

Sound Damping

Gap Filling

And More

Product Description Chart



Markets

Appliance

Automotive

Clean Technology

HVAC

Medical Device

Enclosures

And More

Unsupported PORON® Urethanes



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® Urethanes



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/cm ³	ASTM D 1505	1.395
Modules, MD, psi (kg/cm ²)	ASTM D 882	500,000 (35,200)
Shrinkage, MD, %, (TD)	39 min. at 150C	1.2 (0.0)
Tensile Strength, MD, psi (kg/cm ²)	ASTM D 882	30,000 (2,110)
Ultimate Elongation	ASTM D 882	150
Yield Strength (F5), psi (kg/cm ²)	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	35 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		▲	●										●	●	●									●	▲	▲	▲	

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: ● Standard Product — Supported Product w/ 2mil PET ◆ Supported Product W/ 2mil PET In The Middle
 ▲ Non-Standard Product ■ Product Not Available
 ▷ Non-standard Supported Product W/ 2mil PET In The Middle

PORON® Urethanes

Unsupported (No PET)

Product	Typical Physical Properties											Electrical & Thermal					Temperature Resistance				Flammability & Outgassing					Environmental								
	Density: lb./ft. ³ , (kg / m ³), Tolerance % ASTM D 3574 Test A	Thickness: inches (mm), Tolerance %	Standard Color (Code)	Compression Force Deflection: Range psi (kPa), Typical [†] psi (kPa) 0.2"/min. Strain Rate Force @ 25% Deflection	Hardness / Durometer: Shore "0", Shore "A" ASTM D 2240	Compression Set: % max, Typical [†] % ASTM D 3574 Test D @158°F (70°C)	Compression Set: % max, Typical [†] % ASTM D 3574 Test J / Test D after autoclaved 5 hrs. @ 250°F (120°C)	Dimensional Stability: % max. change 22 hrs. @176°F (80°C) in a forced air oven	Tensile Strength: Min. psi (kPa), Typical [†] psi (kPa), ASTM D 3574 Test E	Tensile Elongation: % Min., Typical [†] %, ASTM D 3574	Tear Strength: Min. pli (kN/m), Typical [†] pli (kN/m), ASTM D 624 Die C	Dielectric Constant: K ("DK"), ASTM D, 150 measurements @ 72°F (22°C) relative humidity 50% for 24 hours.	Dielectric Strength: Typical [†] Volts/mil, ASTM D 149	Dissipation Factor: Tan D ("DF"), ASTM D 150	Volume Resistivity: ohm-cm, ASTM D 257	Surface Resistivity: ohm/sq., ASTM D 257	Thermal Conductivity: W/m-C (BTU-in/hr-ft ² -F), ASTM C 518	Coefficient of Thermal Expansion from -30°C to 100°C (in./in./°C) ASTM E851	Temperature Resistance: Recommended Constant Use - max, SAE J-2236	Temperature Resistance: Recommended Intermittent Use - max, UL 157	Temperature Resistance: Embrittlement, ASTM D 746	Temperature Resistance: Cold Flexibility, MIL-P-12420 @ -40°F (-40°C)	Flame Resistance Thickness (Pass ²): UL HBF (UL 94 and UL 746A) or UL 746CCSA, following C22.2 No. 0.17.00, FMVSS 302 (Pass, ≥), GM3232 (Pass, ≥)	Fogging: SAE J-1756 3 hrs @ 21.2°F (10.0°C)	Outgassing: Total Mass Loss (TML) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10 ⁻³ Pa	Outgassing: Collected Volatile Condensable Materials (CVCN) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10 ⁻³ Pa	Outgassing: Collected Volatile Condensable Materials (CVCN) mg, GMW3235 Code B Condensible Constituent	Outgassing: Water Vapor Regain (WVR) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10 ⁻³ Pa	Gasketing and Sealing: UL-JMST2 (Consisting of UL50 and UL508), CAN/CSA-C22.2 No. 94-M91	Water Absorption: High Humidity Exposure - Typical [†] % weight gain, AMS 3568	Water Absorption: Immersion Testing - Typical [†] % weight gain, ASTM D 570	UV Resistance: ASTM G 53, Results reported on a scale of 1-10 (1 = best)	Ozone Resistance: GM 4486P	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	NA	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), **	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	Black (04)	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	NA	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" (4.78mm) **	Pass	1.73	0.14	0.2	0.71	Pass ¹ **	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	NA	2.3-3.1 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	-60°F (-51°C)	Pass	0.188" (4.78mm), 0.188" (4.78mm), 0.188" (4.78mm) **	Pass	0.8	0.1	0.1	0.2	Pass ² **	2	12	10	Pass	5
	20 (320), ±10	0.062 - 0.125 (1.57 - 3.18) ±10	Black (04)	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	0.076 (0.53)	1.89-2.91 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	-60°F (-51°C)	Pass	0.093" (2.36mm), 0.062" (1.57mm), 0.062" (1.57mm) **	Pass	1	0.1	0.1	0.3	Pass ² **	2	9	10	Pass	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	NA	2.3-3.1 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	-40°F (-40°C)	Pass	0.188" (4.78mm), 0.188" (4.78mm), 0.188" (4.78mm) **	Pass	0.7	0.04	0.04	0.3	Pass ² **	2	10	10	Pass	5
	20 (320), ±10	0.062 - 0.125 (1.57 - 3.18), ±10	Black (04)	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	0.086 (0.60)	1.80-2.60 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	-40°F (-40°C)	Pass	0.062" (1.57mm), 0.062" (1.57mm), 0.062" (1.57mm) **	Pass	0.8	0.04	0.04	0.3	Pass ² **	2	9	10	Pass	6
	30 (480), ±10	0.031 - 0.045 (0.79 - 1.14), ±20	Black (04)	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	NA	2.3-3.1 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	-40°F (-40°C)	Pass	NA, NA, 0.045" (1.14mm) **	NA	1.0	0.05	0.1	0.62	NA	NA	NA	6	Pass	6
4701-41 and Dura-Shape Option	15 (240), ±10	0.188 - 0.500 (4.78 - 12.7), ±10	Black (04)	6-12 (41-83), 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	NA	2.3-3.1 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	NA	Pass	0.197" (5.00mm), NA, 0.188" (4.78mm) **	NA	0.84	0.05	0.1	0.4	Pass ² **	3	15	10	Pass	6
	20 (320), ±10	0.062 - 0.125 (1.57 - 3.18), ±10	Black (04)	11-20 (76-138), 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	NA	1.93-3.03 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	NA	Pass	NA, .125" (3.18mm), 0.062" (1.57mm) **	NA	0.97	0.04	0.1	0.46	Pass ² **	3	13	7	Pass	6
	30 (480), ±10	0.031 - 0.045 (0.79 - 1.14), ±20	Black (04)	20-46 (138-317), 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	NA	2.3-3.1 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	NA	Pass	0.045" (1.14mm), NA, NA, **	NA	1.0	0.06	0.1	0.65	Pass ² **	3	6	7	Pass	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	-	2.3-3.1 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	-40°F (-40°C)	Pass	0.188" (4.78mm), 0.188" (4.78mm), 0.188" (4.78mm) **	Pass	0.6	0.04	0.1	0.1	Pass ² **	2	13	7	Pass	6
	20 (320), ±10	0.062 - 0.125 (1.57 - 3.18) ±10	Black (04)	13-23 (89-161), 17 (117)	24, 18	10, 1.5	5, 1.2	± 2.5	120 (827), 153.9 (1064) *	100, 125 *	10 (1.8), 16 (2.8)	1.63	66.04	0.05	4.26 x 10 ¹²	3.76 x 10 ¹⁴	0.090 (0.63)	1.84-2.09 x 10 ⁻⁴	194°F (90°C)	250°F (121°C)	-40°F (-40°C)	Pass	0.062" (1.57mm), 0.062" (1.57mm), 0.062" (1.57mm) **	Pass	0.8	0.05	0.02	0.3	Pass ² **	2	11	7	Pass	6

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

* Tensile strength and elongation determined by the PET for Dura-Shape materials. ** NA for Dura-Shape version. ¹ See UL File MH15464 ² See UL File MH15464 & File 188149

Product	Typical Physical Properties											Electrical & Thermal						Temperature Resistance				Flammability & Outgassing					Environmental								
	Density: lb./ft ³ (kg / m ³), Tolerance % ASTM D 3574 Test A	Thickness: inches (mm), Tolerance %	Standard Color (Code)	Compression Force Deflection: Range psi (kPa), Typical psi (kPa) 0.2"/min. Strain Rate Force @ 25% Deflection	Hardness / Durometer: Shore "O", Shore "A" ASTM D 2240	Compression Set: % max, Typical % ASTM D 3574 Test D @158°F (70°C)	Compression Set: % max, Typical % ASTM D 3574 Test J / Test D after autoclaved 5 hrs. @ 250°F (120°C)	Dimensional Stability: % max. change 22 hrs. @176°F (80°C) in a forced air oven	Tensile Strength: Min. psi (kPa) Typical psi (kPa), ASTM D 3574 Test E	Tensile Elongation: % Min., Typical % ASTM D 3574	Tear Strength: Min. pli (kN/m), Typical pli (kN/m), ASTM D 624 Die C	Dielectric Constant: K' ("BK") ASTM D, 150 measurements @ 72°F (22°C) relative humidity 50% for 24 hours.	Dielectric Strength: Typical Volts/mil, ASTM D 149	Dissipation Factor: Tan D ("DF"), ASTM D 150	Volume Resistivity: ohm-cm, ASTM D 257	Surface Resistivity: ohm/sq., ASTM D 257	Thermal Conductivity: W/m-C (BTU-in/hr-ft ² -F), ASTM C 518	Coefficient of Thermal Expansion from -30°C to 100°C (in./in./°C) ASTM E831	Temperature Resistance: Recommended Constant Use - max, SAE J-2236	Temperature Resistance: Recommended Intermittent Use - max, UL 157	Temperature Resistance: Embrittlement, ASTM D 746	Temperature Resistance: Cold Flexibility, MIL-P-12420 D @ -40°F (-40°C)	Flame Resistance Thickness (Pass ²): UL HBF (UL 94 and UL 746A(or)UL746COSA, following C22.2 No. 0.17.00), FMVSS 302 (Pass, ≥), GM3232 (Pass≥)	Fogging: SAE J-1756 3 hrs @ 21.2°F (100°C)	Outgassing: Total Mass Loss (TML) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10 ⁻³ Pa	Outgassing: Collected Volatile Condensable Materials (CVCN) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10 ⁻³ Pa	Outgassing: Collected Volatile Condensable Materials (CVCN) mg, GMW3235 Code B Condensible Constituent	Outgassing: Water Vapor Regain (WVR) %, ASTM E 595 24 hrs. @ 257°F (125°C) @ <7x10 ⁻³ Pa	Gasketing and Sealing: UL JMST2 (Consisting of UL50 and UL508), CAN/CSA-C22.2 No. 94-M91	Water Absorption: High Humidity Exposure - Typical % weight gain, AMS 3568	Water Absorption: Immersion Testing - Typical % weight gain, ASTM D 570	UV Resistance: ASTM G 53, Results reported on a scale of 1-10 (1 = best)	Ozone Resistance: GM 4486P	Corrosion Resistance: Median visual evaluation number, SAE J1389	
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	NA	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	Black (04)	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	0.088 (0.61)	2.31-2.92 x 10 ⁻⁴	158°F (70°C)	250°F (121°C)	3°F (-16°C)	Pass	0.062" (1.57mm), 0.062" (1.57mm)	Pass	0.7	0.02	0.03	0.5	Pass ²	2	20	5	Pass	6	
	25 (400), ±10	0.031 - 0.093 (0.79 - 2.36), ±15	Black (04)	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	NA	2.3-3.1 x 10 ⁻⁴	158°F (70°C)	250°F (121°C)	3°F (-16°C)	Pass	NA, 0.062" (1.57mm), 0.062" (1.57mm)	Pass	0.7	0.03	0.02	0.6	Pass ²	2	6	5	Pass	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	NA	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	Black (04)	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	NA	NA	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	Pass ¹	NA	10	NA	NA	6
	20 (320), ±10	0.062-0.188 (1.57-4.78), ±10	Black (04)	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	NA	NA	NA	NA	NA	6.8°F (-14°C)	NA	0.062" (1.57mm), 0.062" (1.57mm)	NA	0.67-0.77	0.03-0.04	0.05	0.35-0.47	Pass ¹	NA	10	NA	NA	6
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	0.083 (0.58)	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	Black (04)	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	NA	2.3-3.1 x 10 ⁻⁴	158°F (70°C)	250°F (121°C)	0°F (-18°C)	Pass	0.081" (2.06mm), NA, 0.081" (2.06mm)	Pass	1.63	0.29	0.1	0.49	NA	2	23	1	Pass	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	0.076 (0.53)	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



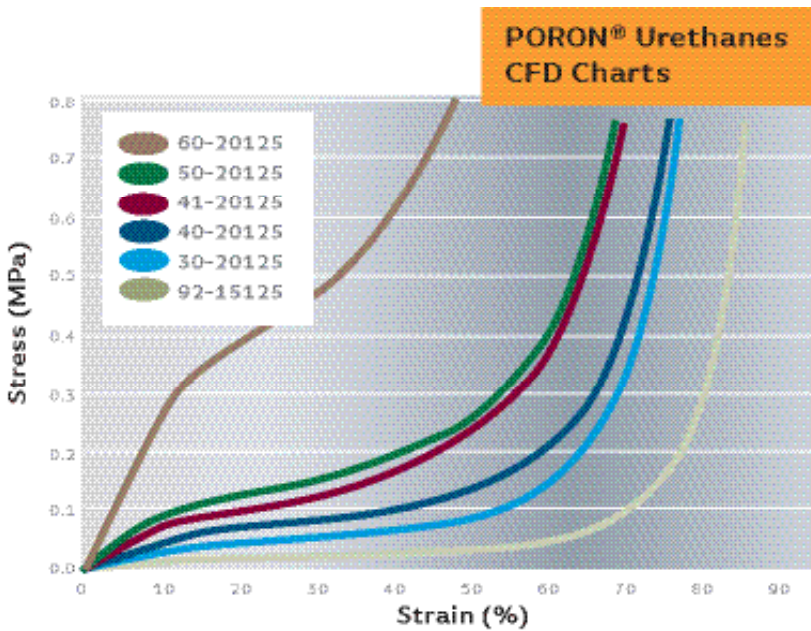
Performance Data



The Rogers High Performance Foams Impact Prediction Tool

www.rogerscorp.com/hpf/tools/impactprediction

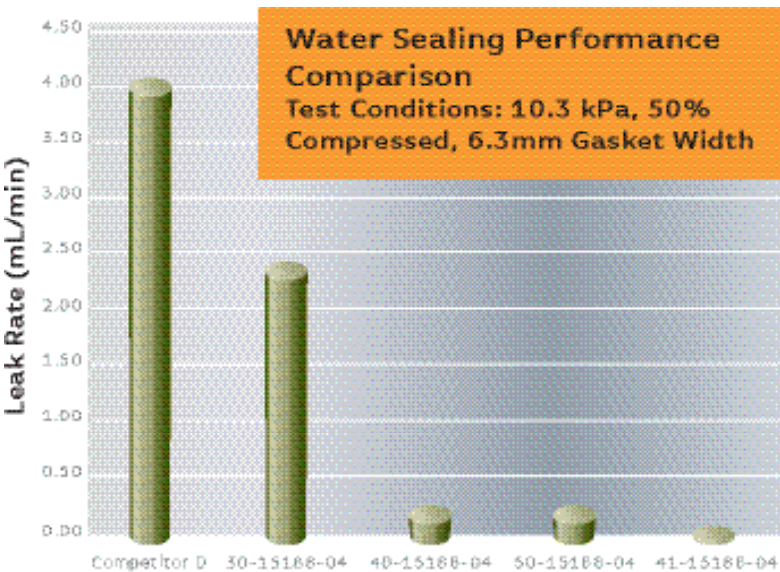
This tool was developed to help you choose the best PORON® Urethane or BISCO® Silicone materials for energy absorbing applications.



The PORON Urethanes Gap Filling Tool

www.rogerscorp.com/hpf/tools/gapfilling

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 Tool

www.rogerscorp.com/hpf/tools/msg

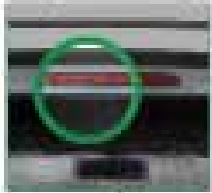
This tool will assist you in identifying the proper PORON® Urethane and BISCO® Silicone materials that best meet your numerous design requirements. The purpose of the tool is to provide several material options based upon your application requirements.

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

Typical Industrial Application: Hybrid Electric Vehicle

High Mount Stop Light

Water Sealing
& Light Blocking



LED & Console Buttons

Gasketing



Rear-View Camera

Water & Dust Sealing

Blinkers

Gasketing

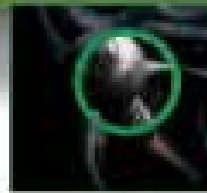


Headlight

Water Sealing
& Light Blocking



Reversing Camera
Water & Dust Sealing



Shift Grip
Cushioning

Battery Pack
Environmental Seal
Spacing / Cushioning

World Class Performance

Rogers Corporation (NYSE:ROG) is a global technology leader in specialty materials and components that enable high performance and reliability of consumer electronics, power electronics, mass transit, clean technology, and telecommunications infrastructure. With more than 178 years of materials science and process engineering knowledge, Rogers provides product designers with solutions to their most demanding challenges. Rogers' products include advanced circuit materials for wireless infrastructure, power amplifiers, radar systems, high speed digital; power electronics for high-voltage rail traction, hybrid-electric vehicles, wind and solar power conversion; and high performance foams for sealing and energy management in smart phones, aircraft and rail interiors, automobiles and apparel; and other advanced materials for diverse markets including defense and consumer products. Headquartered in Connecticut (USA), Rogers operates manufacturing facilities in the United States, Belgium, China, Germany, and South Korea, with joint ventures and sales offices worldwide.

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

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