


Microcellular Polyurethane
U1B21

Typical Physical Properties

PROPERTY	TEST METHOD	VALUE
PHYSICAL		
Density, lb./ft ³ (kg/m ³) Tolerance, %	ASTM D3574 (1,5)	20 (320) ± 5
Thickness, inches (mm) Tolerance, %	(5,6)	0.062 - 0.500 (1.6 - 12.7) ± 10
Standard Color (Pantone® code)	-	Black (0426)
Compression Force Deflection, psi (kPa) Typical psi (kPa)	ASTM D3489 (1,5) at 25% compression	8 - 12 (55 - 83) 9.8 (68)
Compression Set, % max. (Typical)	ASTM D3574 Test D (1,3) at 50% compression, 73°F (23°C)	4 (1.5)
	ASTM D3574 Test D (1,3) at 50% compression, 158°F (70°C)	10 (2.5)
	ASTM D3574 Test J2 & Test D (1,3,4) Autoclave then 50% compression, 158°F (70°C)	5 (1.5)
Tensile Strength, min. psi (kPa) Typical psi (kPa)	ASTM D3574 Test E Die A (5)	75 (517) 118 (814)
Tensile Elongation, % min. Typical	ASTM D3574 Test E Die A (2)	100 150
Tear Strength, min. pli (kN/m) Typical pli (kN/m)	ASTM D624 Die C (5)	8 (1.4) 12 (2.1)
Resilience (Ball Rebound), %	ASTM D3574 Test H	30
TEMPERATURE RESISTANCE		
Continuous Use Range	SAE-J-2236	-40° to 225°F (107°C)
Intermittent Use Maximum	-	250°F (121°C)
Low Temperature Flex	Ford WWSS-M2D496 and Chrysler MS-AY 549	No Cracking

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PROPERTY	TEST METHOD	VALUE
FLAMMABILITY AND OUTGASSING		
Flammability	UL94HBF	Pass
ENVIRONMENTAL		
Water Absorption, %, Typical	ASTM D1056	6
Gasketing and Sealing	UL50/508 JMST2	Pass

- (1) Sample size is 1.5 inch diameter by approximately 0.5 inch stack height
- (2) Based on grip separation
- (3) Ct calculation, percent of original thickness
- (4) Autoclaved for 5 hours at 250°F then test D
- (5) All metric conversions are approximate
- (6) ASTM D3574 method with the following exceptions: 1.5 inch diameter foot on digital thickness indicator with a force loading of 0.9 Newtons (91.8 grams-force) plus the 30 gram weight of the foot

NOTE: Information of a technical nature is based on laboratory tests which either GRISWOLD LLC conducts or sends to an independent laboratory for testing for determination of uses as requested in writing by customer. GRISWOLD LLC believes these to be reliable. However, GRISWOLD LLC has no control over the application of the material to, or part of, the final **product** and **therefore**, GRISWOLD LLC makes **no express or implied warranty of result, fitness or merchantability**. The customer should determine reliability for the end use or particular application.

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