GRISWOLD
ADVANCING PERFORMANCE

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enlighten-U Microcellular Polyurethane

U7Y20

Typical Physical Properties

PROPERTY	TEST METHOD	VALUE
PHYSICAL		
Density, lb./ft^3 (kg/m^3) **Tolerance,** %	ASTM D3574 (1,5)	20.0 (320) **± 10**
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	13 - 23 (90 - 157) **14 (97)**
Compression Set, % max. **(Typical)**	ASTM D3574 Test D (1,3) at 50% compression, 73°F (23°C)	5 **(2.6)**
	ASTM D3574 Test D (1,3) at 50% compression, 158°F (70°C)	10 **(2.9)**
	ASTM D3574 Test J2 & Test D (1,3,4) Autoclave then 50% compression, 158°F (70°C)	5 **(3.2)**
Dimensional Stability, % max. change	24 hrs. at 194°F (90°C)	5
Tensile Strength, min. psi (kPa) **Typical psi (kPa)**	ASTM D3574 Test E Die A (5)	130 (897) **197 (1359)**
Tensile Elongation, % min. **Typical**	ASTM D3574 Test E Die A (2)	120 **155**
Tear Strength, min. pli (kN/m) **Typical pli (kN/m)**	ASTM D624 Die C (5)	14 (2.5) **20 (3.5)**
Resilience (Ball Rebound), %	ASTM D3574 Test H	14
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 WSS-M2D496 and Chrysler MS-AY 549	No Cracking

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PROPERTY	TEST METHOD	VALUE
FLAMMABILITY AND OUTGASSING		
Flammability	FMVSS-302 ISO 3795 GM6090PB4A	Pass Pass Pass
Fogging (gloss), reflectivity visual	SAE J1756 Dec94	98 Dry Deposits
ENVIRONMENTAL		
Water Absorption	ASTM D570	Pass
Staining, visual	ASTM D925	No Staining
Solvent Resistance, visual	Immerse specimens in: petroleum light naphtha, trichloroethylene 50/50 mix, antifreeze & water (Ford spec), windshield washer solution (Ford spec), electrical grease (Ford spec), 50/50 mix soap & water	No Change
	Immerse specimens for 10 minutes then allow to evaporate. Solvents: 9981062 naphtha - interior applications. 9981194 aliphatic hydrocarbon with emulsifier - exterior applications. 9981062 aliphatic hydrocarbon with emulsifier - interior applications	No Change

(1) Sample size is 1.5 inch diameter by approximately 0.5 inch stack height
(2) Based on grip separation
(3) Ct method, 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

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