



GRISWOLD LLC  
 PO Box 638, One River Street  
 Moosup, Connecticut 06354-0638  
 Tel: 800.472.8788 / 860.564.3321  
 Fax: 860.564.9103  
 www.griswoldllc.com

enlighten- microcellular polyurethane

**U1E17**

Typical Physical Properties

| PROPERTY                                                          | TEST METHOD                                                                | VALUE                              |
|-------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------|
| <b>PHYSICAL</b>                                                   |                                                                            |                                    |
| Density, lb./ft <sup>3</sup> (kg/m <sup>3</sup> )<br>Tolerance, % | ASTM D3574 (1,5)                                                           | 15 (240.28)<br>± 5                 |
| Thickness, inches (mm)<br>Tolerance, %                            | (5,6)                                                                      | 0.062 - 0.500 (1.6 - 12.7)<br>± 10 |
| Standard Color (Pantone® code)                                    |                                                                            | Black (0426)                       |
| Compression Force Deflection, psi (kPa)<br>Typical psi (kPa)      | ASTM D3489 (1,5)<br>at 25% compression                                     | 4 - 9 (28 - 62)<br>5.7 (39)        |
| Compression Set, % max. (Typical)                                 | ASTM D3574-D (1,3)<br>at 50% compression, 73°F (23°C)                      | 2 (0.6)                            |
|                                                                   | ASTM D3574-D (1,3)<br>at 50% compression, 158°F (70°C)                     | 8 (3.0)                            |
|                                                                   | ASTM D3574-J2 & -D (1,3,4)<br>Autoclave then 50% compression, 158°F (70°C) | 5 (0.9)                            |
| Dimensional Stability, % max. change<br>Typical                   | 24 hr at 194°F (90°C)                                                      | 5<br>0.3                           |
| Tensile Strength, min. psi (kPa)<br>Typical psi (kPa)             | ASTM D3574-E Die A (5)                                                     | 50 (345)<br>66 (455)               |
| Tensile Elongation, % min.<br>Typical                             | ASTM D3574-E Die A (2)                                                     | 100<br>110                         |
| Tear Strength, min. pli (kN/m)<br>Typical pli (kN/m)              | ASTM D624 Die C (5)                                                        | 4 (0.7)<br>8 (1.4)                 |
| Resilience (Ball Rebound), %                                      | ASTM D3574-H                                                               | 16                                 |
| <b>TEMPERATURE RESISTANCE</b>                                     |                                                                            |                                    |
| Continuous Use Range                                              | SAE-J-2236                                                                 | -40° to 225°F (107°C)              |
| Intermittent Use Maximum                                          |                                                                            | 250°F (121°C)                      |
| Low Temperature Flex                                              | 24 hr at -40°,<br>mandrel diameter = 1 inch                                | No Cracking                        |

**U1E17**

Typical Physical Properties

| PROPERTY                                       | TEST METHOD                                                                                                                                                                                                        | VALUE                                                 |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| <b>FLAMMABILITY AND OUTGASSING</b>             |                                                                                                                                                                                                                    |                                                       |
| <b>Flammability</b>                            | FMVSS-302                                                                                                                                                                                                          | Pass                                                  |
|                                                | ISO 3795                                                                                                                                                                                                           | Pass                                                  |
|                                                | UL94HBF                                                                                                                                                                                                            | Pass                                                  |
| <b>Fogging (gloss), reflectivity</b><br>visual | SAE J1756<br>3 hr at 194°F (90°C)                                                                                                                                                                                  | 99<br>Dry deposits                                    |
| <b>ENVIRONMENTAL</b>                           |                                                                                                                                                                                                                    |                                                       |
| <b>Water Absorption, %, typical</b>            | ASTM D570                                                                                                                                                                                                          | 17                                                    |
| <b>Staining, visual</b>                        | ASTM D925                                                                                                                                                                                                          | No Staining                                           |
| <b>Solvent Resistance, visual</b>              | Immerse in:<br>light naphtha<br>naphtha<br>trichloroethylene<br>50/50 mix antifreeze & water<br>windshield washer solution<br>electrical grease<br>50/50 mix soap & water<br>aliphatic hydrocarbon with emulsifier | No Change,<br>some swelling with<br>trichloroethylene |
| <b>Gasketing and Sealing</b>                   | 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 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

**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.