

EPU 40

EPU 40 is a high performance polyurethane elastomer that is a good choice for applications where high elasticity, resilience, and tear resistance are needed.

| Mechanical Properties | Metric | U.S. |
|---|-------------|-------------------------------|
| Modulus, Straight, 500mm/min, ASTM D412 | 8 ± 1 MPa | 1.15 ± 0.15 ksi |
| Ultimate Tensile Strength, Straight, 500mm/min, ASTM D412 | 6 ± 1 MPa | 0.85 ± 0.15 ksi |
| Elongation at Break, Straight, 500mm/min, ASTM D412 | 190 ± 10 % | 190 ± 10 % |
| Tensile Set, 100% Elongation, Straight, ASTM D412 | 2.1% | |
| Tear Strength, ASTM D624-C | 23 ± 3 kN/m | 130 ± 17 lb _f /in. |
| Hardness, ASTM D2240 | 68, Shore A | |
| Compression Set, 23°C, 72 hrs, ASTM D395-B | 23% | |
| Bayshore Rebound Resilience, ASTM 2362 | 29% | |

| Thermal Properties | | |
|--|------------|------------|
| Coefficient of Thermal Expansion (ASTM D696) | 190 ppm/°C | 106 ppm/°F |
| T _g (DMA, E') | -50 °C | -58 °F |
| T _g (DMA, tan(d)) | -6 °C | 21 °F |

| Dielectric Properties | |
|--|-------|
| Dissipation Factor (ASTM D150, 1 MHz) | 0.031 |
| Dielectric Constant (ASTM D150, 1 MHz) | 3.9 |

NOTES—Test specimens were prepared using Carbon M1 printer and a Type C cassette. Print parameters were generated using software v1.6. Tensile data were generated using printed tensile bar samples (per ASTM D412). All other test specimens were printed following standard ASTM test geometries. All test specimens were printed, cleaned, and post-processed per instructions provided in the Carbon User Manual. Liquid property measurements were carried out using fully mixed resins. Results provided herein are representative of these processes and may vary if these established protocols are not followed.