

EPU 41

EPU 41 is a production-scale elastomeric material that is especially well-suited for elastomeric lattices where high resiliency is needed.

Tensile Properties ASTM D412, Die-C Shape, 500 mm/min	Metric	U.S.
Ultimate Tensile Strength	6.2 MPa	900 psi
Elongation at Break	> 130 %	
Stress at 50 % Elongation	2.7 MPa	390 psi
Stress at 100 % Elongation	4.7 MPa	680 psi

Mechanical Properties	Metric	U.S.
Tear Strength, ASTM D624, Die-C (die cut)	20 kN/m	110 lb _f /in
Compression Set, 23 °C, 72 hrs, ASTM D395-B	22 %	
Bayshore Rebound Resilience, ASTM D2632	30 %	
Ross Flexing Fatigue, ASTM D1052 23 °C, 60 degree bending, 100 cycles/minute	> 50,000 cycles	
Ross Flexing Fatigue, ASTM D1052 -10 °C, 60 degree bending, 100 cycles/minute	> 40,000 cycles	

Thermal Properties	Metric	U.S.
T _g (DMA, tan(d)), ASTM D4065	-9 °C	16 °F

General Properties	Metric
Hardness, Shore A, ASTM D2240	73 (instant) 70 (5 sec)
Density, ASTM D792	1.027 g/cm ³
Relative Abrasion Volume Loss (ISO 4649 A)	66 mm ³

NOTES—Results in this data sheet represent typical values from specific sample generation and testing processes and may vary if the established protocols are not followed. Contact Carbon for the specific process used to generate the test samples to determine each of these values. The U.S. values are converted from Metric measurements and are for reference only.

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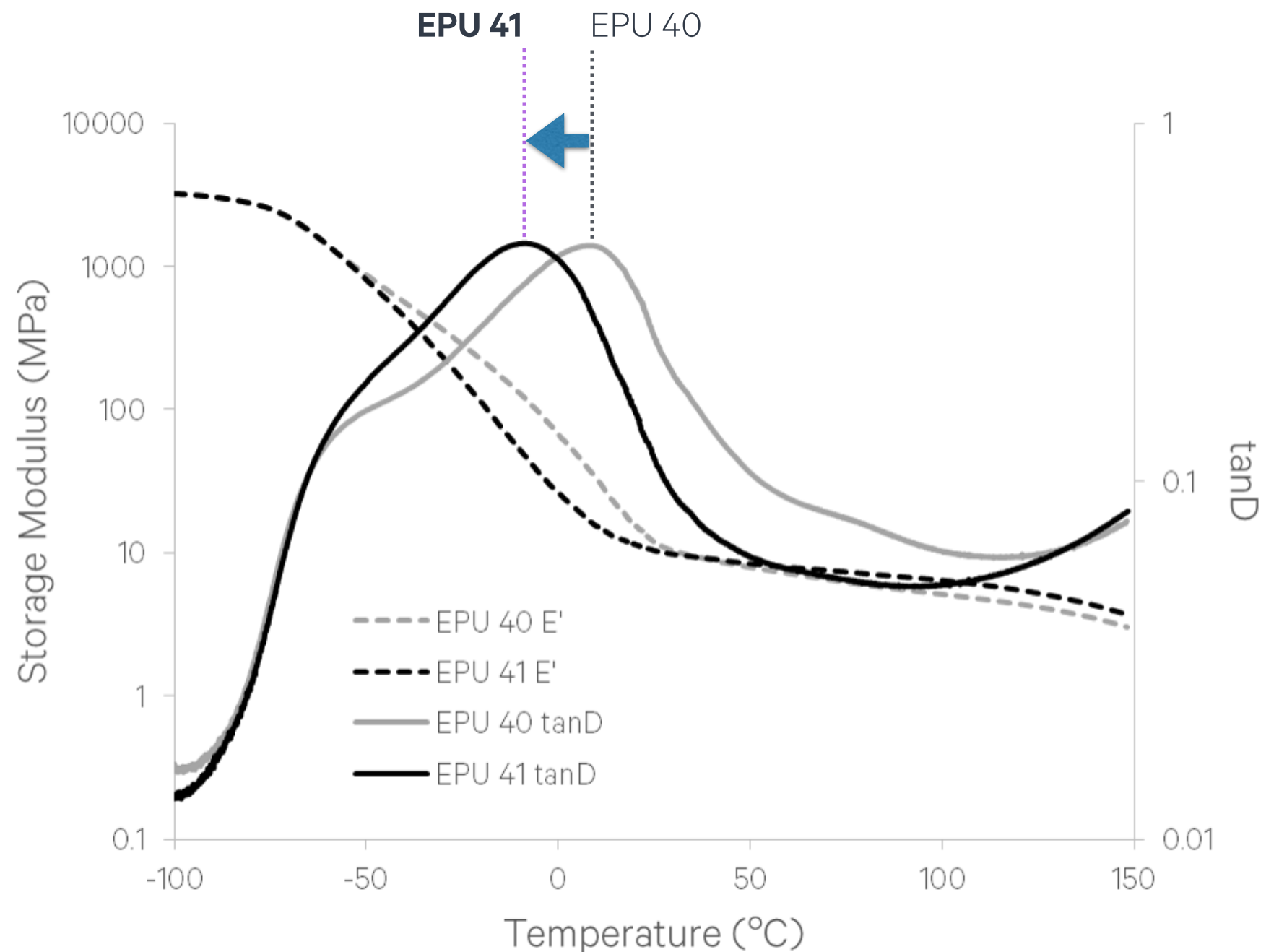
EPU 41 Expanded TDS

EPU 41 Expanded TDS Table of Contents

- **Thermal properties**
 - DMA of EPU 40 vs. 41

EPU 41 vs. EPU 40 (DMA Dynamic Mechanical Analysis)

EPU 41 has improved cold temperature performance vs. EPU 40



EPU 41 has lower T_g ($\tan\delta$ peak), indicating retention of elastomeric properties down to colder temperatures

EPU 41 $T_g(\tan\delta) = -9^\circ\text{C}$
EPU 40 $T_g(\tan\delta) = 8^\circ\text{C}$