

## **Sorbothane Polyurethane Damping Material, 70 Durometer**

Category: Polymer, Thermoset, Polyurethane, TS, Thermoset Polyurethane, Elastomer, Unreinforced, Rubber or Thermoset Elastomer (TSE)

## **Material Notes:**

Sorbothane® is a thermoset, polyether-based polyurethane viscoelastic material that combines high energy absorption with faultless memory. Sorbothane turns mechanical energy into heat. As the material is deformed, the friction created at the molecular level is generated into heat. High hysteresis is then formed. The energy is moved perpendicularly away from its original plane and is pushed close to 90° out of phase from its original disturbing force. Sorbothane is used in shock/vibration mounts, stud mounts, and grommets/bushings in diverse fields such as electronics/audio equipment, noise abatement, insoles, protective sports gear, and anti-vibration gloves and wraps. Information provided by Sorbothane Inc

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Sorbothane-Polyurethane-Damping-Material-70-Durometer.php

Physical Properties	Metric	English	Comments
Density	1.30 g/cc	0.0470 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	1.07 MPa	155 psi	500 mm/min; ASTM D412 80
Tensile Strength, Yield	0.490 MPa	71.1 psi	ASTM D412 80
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Elongation at Break	300 %	300 %	500 mm/min; ASTM D412 80
Compressive Yield Strength	1.31 MPa	190 psi	50% strain; ASTM D575 Method A
Resilience	15	15	Lupke rebound test
Coefficient of Friction	2.5	2.5	on polished steel; ASTM D1894
Coefficient of Friction, Static	4.1	4.1	on polished steel; ASTM D1894
Tear Strength Test	29	29	psi per ASTM 624 with 1 mm nick
Compression Set	4.5 %	4.5 %	72 hr/73°F/25% compression - ASTM 395

Thermal Properties	Metric	English	Comments
	132 μm/m-°C	73.3 µin/in-°F	
CTE, linear	@Temperature -50.0 - 100 °C	@Temperature -58.0 - 212 °F	
Thermal Conductivity	0.390 W/m-K	2.71 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	<= 82.0 °C	<= 180 °F	Optimum performance range



Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	-40.0 °C	-40.0 °F	
Flammability, UL94	V-2	V-2	

Electrical Properties	Metric	English	Comments
Dielectric Strength	13.1 kV/mm	333 kV/in	BS 903

## **Contact Songhan Plastic Technology Co.,Ltd.**

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