



Data Sheet

SO50 50 Shore OO Sorbothane® Polyurethane Sheet & Moulded Components

Data Sheet Type Final

Material Reference SO50

Polymer Polyurethane

Date Issued 02/04/25



Description

SO50 50° Shore OO Sorbothane is a Polyurethane Compound that can be supplied as sheets and can be moulded into components. Sorbothane is a super-soft polyurethane that exhibits properties of both liquids and solids. Designed to absorb energy and widely used for shock absorption and impact dampening.

Specifications	Values	Test Methods
Acoustic Properties - Transmission in Air	> 40 dec/cm	None
Bacterial Resistance	No Growth	None
Bulk Modulus	2.86 gPascal	None
Chemical Resistance to Diesel	6.4 %	None
Chemical Resistance to Hydraulic Fluid	-1.4 %	None
Chemical Resistance to Kerosene	4.3 %	None
Chemical Resistance to Soap Solution	5 %	None
Colour	Black	None
Compressive Stress @ 50%	7.4 kg/cm ³	None
Compressive Stress @20%	0.85 kg/cm ³	None
Dielectric Strength	256 v/mil	None
Dynamic Youngs Modulus @ 15 hertz	10.67 kg/cm ²	None
Dynamic Youngs Modulus @ 30 hertz	14.79 kg/cm ²	None
Dynamic Youngs Modulus @ 5 hertz	7.4 kg/cm ²	None
Dynamic Youngs Modulus @ 50 hertz	19.02 kg/cm ²	None
Elongation at Break	568 %	ASTM D412
Flash Ignition Flammability	317 °C	None
Fungal Resistance	No Growth	None
Glass Transition	-37.4 °C	None
Heat Ageing	Stable	None
Highest Recommended Working Temperature	98 °C	None
Lowest Recommended Working Temperature	-15 °C	None
Ozone Resistance	Special Compound Option	ASTM D1149 Type A
Resilience Test Rebound Height	11 %	None
Self Ignition Flammability	417 °C	None
Shore Hardness (Shore OO)	50 ° Shore	ISO 8301 1991
Specific Gravity	1.364 g/cm ³	ASTM D2240
Tan Delta @ 15 Hertz Excitation	0.58	None
Tan Delta @ 30 Hertz Excitation	0.57	None
Tan Delta @ 5 Hertz Excitation	0.56	None
Tan Delta @ 50 Hertz Excitation	0.5	None
Tear Strength	8.72 kg/cm ³	None
Tensile Elastic Stress @ 100% Strain	1.79 kg/cm ³	None
Tensile Elastic Stress @ 200% Strain	3.86 kg/cm ³	None
Tensile Elastic Stress @ 300% Strain	5.65 kg/cm ³	None
Tensile Strength @ Break	8.64 kg/cm ³	None
UV Resistance	Good	None

Purposes



Acid Resistance



Anti-Vibration



Chemical Resistant



Wear Resistant

Important Notes about this Material Data Sheet

This datasheet has been carefully compiled to advise you, our customer, in the best possible way. The information, figures, test values, and data correspond to actual engineering standards and are the result of many years of tests and trials. As individual operating conditions influence the application of each product, the information supplied in this datasheet can only be seen as a rough guideline. In every case it is the sole responsibility of the customer to evaluate his individual requirements, in particular whether the specified properties of our products are sufficient for the intended use. This datasheet is subject to alteration without prior notice. All mentioned values contained herein are guiding values representing long-term experience averages. Please be aware that Test Results for individual Material Batches will only be provided if requested at the time of order and may be subject to additional charges and/or lead times. This Data Sheet supersedes all previous data sheets and any other data previously provided either Verbally, Electronic or Written, with reference to the above Material Grade.