

Generic TSU

Polyurethane Thermoset Elastomer

Generic

Message:

This data represents typical values that have been calculated from all products classified as: Generic TSU
This information is provided for comparative purposes only.

General Information			
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.999 to 1.26	g/cm ³	ASTM D792
--	1.02 to 1.15	g/cm ³	ASTM D1505
Apparent Density	1.01 to 1.09	g/cm ³	ASTM D1895
Molding Shrinkage - Flow (23°C)	0.060 to 0.42	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (23°C)	14 to 96		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	0.186 to 285	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield, 23°C	2.35 to 44.3	MPa	
23°C	0.379 to 69.4	MPa	
Tensile Elongation			ASTM D638
Yield, 23°C	10 to 810	%	
Break, 23°C	8.5 to 800	%	
Flexural Modulus (23°C)	24.8 to 4470	MPa	ASTM D790
Flexural Strength (23°C)	6.69 to 115	MPa	ASTM D790
Coefficient of Friction	0.79 to 0.80		ASTM D1894
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% Strain, 23°C	0.290 to 9.12	MPa	
200% Strain, 23°C	1.24 to 17.2	MPa	
300% Strain, 23°C	0.414 to 13.0	MPa	
Tensile Strength			ASTM D412
Yield, 23°C	2.38 to 26.5	MPa	
Break, 23°C	1.62 to 38.4	MPa	
Tensile Elongation (Break, 23°C)	2.0 to 810	%	ASTM D412
Tear Strength			
23°C	4.20 to 69.7	kN/m	ASTM D624
Split	27	kN/m	ASTM D470
Compression Set	2.7 to 72	%	ASTM D395

Bayshore Resilience	47 to 59	%	ASTM D2632
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	14 to 69	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	53.1 to 117	°C	
1.8 MPa, Unannealed	46.0 to 96.0	°C	
Brittleness Temperature	-67.8 to -66.8	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.9E+10 to 7.1E+16	ohms	ASTM D257
Dielectric Constant (23°C)	3.54 to 6.61		ASTM D150
Dissipation Factor (23°C)	0.010 to 0.10		ASTM D150
Thermoset	Nominal Value	Unit	Test Method
Pot Life (23°C)	7.4 to 45	min	
Shelf Life (23°C)	24 to 78	wk	
Thermoset Mix Viscosity	10.0 to 3720	cP	ASTM D2393
Demold Time	5.0 to 440	min	
Post Cure Time	3.0 to 150	hr	
Uncured Properties	Nominal Value	Unit	Test Method
Viscosity (23°C)	0.040 to 1.2	Pa·s	
Curing Time (23°C)	24 to 1.7E+2	hr	
Gel Time (23°C)	0.50 to 27	min	
Cured Properties	Nominal Value	Unit	Test Method
Shore Hardness (23°C)	50 to 90		
Tensile Modulus (23°C)	1030 to 1860	MPa	
Tensile Strength (23°C)	1.14 to 69.3	MPa	
Tensile Elongation at Break (23°C)	2.0 to 100	%	
Tear Strength (23°C)	3.50 to 30.8	kN/m	

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