Generic Epoxy

Epoxy; Epoxide

Generic

Message:

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

General Information			
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	0.492 to 2.00	g/cm³	ASTM D792
23°C	0.994 to 1.43	g/cm³	ISO 1183
--	0.787 to 1.81	g/cm³	ASTM D1505
Apparent Density	1.04 to 1.61	g/cm³	ASTM D1895
Molding Shrinkage - Flow (23°C)	0.010 to 0.76	%	ASTM D955
Water Absorption			ASTM D570
23°C, 24 hr	0.060 to 0.41	%	
Saturation, 23°C	0.20 to 0.87	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			
23°C	73 to 92		ASTM D2240
23°C	79 to 88		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	186 to 18400	MPa	ASTM D638
Tensile Strength			
Yield, 23°C	10.9 to 180	MPa	ASTM D638
Yield, 23°C	30.0 to 76.0	MPa	ISO 527-2
Break, 23°C	13.4 to 247	MPa	ASTM D638
Ultimate, 23°C	45.7 to 53.0	MPa	ASTM D638
23°C	0.00621 to 83.5	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield, 23°C	0.40 to 6.7	%	
Break, 23°C	0.63 to 23	%	
Flexural Modulus (23°C)	1.17 to 12700	MPa	ASTM D790
Flexural Strength			
23°C	0.00686 to 179	MPa	ASTM D790
23°C	85.0 to 100	MPa	ISO 178
Yield, 23°C	26.4 to 252	MPa	ASTM D790
Break, 23°C	57.1 to 62.4	MPa	ASTM D790
Compressive Modulus	21.6 to 2800	MPa	ASTM D695

Compressive Strength (23°C)	16.7 to 201	MPa	ASTM D695
Shear Strength (23°C)	3.90 to 53.5	MPa	ASTM D732
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break, 23°C)	17.2 to 56.5	MPa	ASTM D412
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	11 to 64	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	48.8 to 243	°C	
1.8 MPa, Unannealed	44.3 to 245	°C	
Continuous Use Temperature	68.8 to 157	°C	ASTM D794
Glass Transition Temperature			
--	36.1 to 228	°C	ASTM E1356
--	51.8 to 171	°C	DSC
CLTE - Flow	5.8E-6 to 9.2E-5	cm/cm/°C	ASTM D696
Thermal Conductivity			
23°C	0.062 to 0.86	W/m/K	ASTM C177
23°C	0.20 to 0.42	W/m/K	ISO 8302
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	4.0E+10 to 1.5E+16	ohms	ASTM D257
Volume Resistivity			
23°C	1.5E-4 to 5.0E+16	ohms·cm	ASTM D257
23°C	5.0E-4 to 2.5E+15	ohms·cm	IEC 60093
Dielectric Strength			
23°C	2.2 to 36	kV/mm	ASTM D149
23°C	16 to 25	kV/mm	IEC 60243-1
Dielectric Constant			
23°C	3.16 to 5.29		ASTM D150
23°C	3.34 to 5.23		IEC 60250
Dissipation Factor (23°C)	6.0E-4 to 0.040		ASTM D150
Arc Resistance	177 to 180	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	30 to 34	%	ASTM D2863
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.508 to 1.546		ASTM D542
Transmittance	86.8 to 99.0	%	ASTM D1003
Thermoset	**Nominal Value**	**Unit**	**Test Method**
Pot Life (23°C)	1.0 to 3300	min	
Shelf Life (23°C)	24 to 54	wk	
Thermoset Mix Viscosity	14.0 to 23500	cP	ASTM D2393
Demold Time	0.54 to 270	min	
Post Cure Time	0.50 to 7.7	hr	

Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity	0.550 to 126	Pa·s	ASTM D3835

Uncured Properties	Nominal Value	Unit	Test Method
	Amber		
	Black		
	Clear/Transparent		
	Colorless		
Color	Grey		
Density (23°C)	0.913 to 1.63	g/cm³	
Viscosity (23°C)	0.055 to 11	Pa·s	
Curing Time (23°C)	2.5 to 25	hr	
Pot Life (23°C)	28 to 160	min	

Recommended distributors for this material

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