

Tolron® 4301 Material Specifications

Torlon® has superior resistance to elevated temperatures. It is capable of performing under severe stress conditions at continuous temperatures to 500°F (260°C). Torlon® has extremely low coefficient of linear thermal expansion.

Physical Properties	Units	Test	4301
Density	lb/in ³	D792	0.052
	g/cm ³		1.45
Water Absorption, 24 hrs.	%	D570	0.4
Water Absorption, Saturation	%	D570	-

Mechanical Properties	Units	Test	4301
Tensile Strength	psi	D638	12,000
Tensile Modulus	psi	D638	800,000
Tensile Elongation at Break	%	D638	3
Flexural Strength	psi	D790	23,000
Flexural Modulus	psi	D790	800,000
Compressive Strength	psi	D695	22,000
Compressive Modulus	psi	D695	950,000
Hardness Rockwell	-	D785	M106 (E70)
Izod Impact Notched	ft-lb/in	D256	0.8

Thermal Properties	Units	Test	4301
Coefficient of Linear Thermal Expansion	X 10 ⁻⁵ in./in./°F	D696	1.4
		E831	-
Heat Deflection Temperature	@264 psi °F/°C	D648	534 / 279
Melting Temperature	°F/°C	D3418	527 / 275
Max. Operating Temperature	°F/°C	-	500 / 260
Thermal Conductivity	BTU- in/ft ² -hr.-°F x 10 ⁻⁴ cal/cm-sec-°C	C177	3.70
			12.8
Flammability Rating	-	UL94	V - 0

Electrical Properties	Units	Test	4301
Dielectric Strength	(V/mil) short time, 1/8" thick	D149	-
Dielectric Constant	@1 MHz	D150	6.0
Dissipation Factor	@1 MHz	D150	0.037
Volume Resistivity	Ohm-cm @50% RH	D257	> 10 ¹³

**The information provided in this table is a compilation of publicly available data. This information is provided for comparison purposes only, and is not intended to be warrantable. Further, *Technical Products, Inc.* disclaims any and all liability from errors, in accuracies, or omissions.