TYPICAL PROPERTIES OF Torlon® 4301

Property	Test Method[2]	Typical Values[1] U.S. Customary Units Value	Units	SI Units Value	Units
Mechanical					
Tensile strength					
73°F (23°C)	D 1708	23.7	kpsi	164	MPa
275°F (135°C)	D 1708	16.3	kpsi	113	MPa
450°F (232°C)	D 1708	10.6	kpsi	73	MPa
Tensile elongation					
73°F (23°C)	D 1708	7	%	7	%
275°F (135°C)	D 1708	20	%	20	%
450°F (232°C)	D 1708	17	%	17	%
Tensile modulus	D 1708	950	kpsi	6.6	GPa
Flexural strength					
73°F (23°C)	D 790	31.2	kpsi	219	MPa
275°F (135°C)	D 790	23.5	kpsi	165	MPa
450°F (232°C)	D 790	16.2	kpsi	113	MPa
Flexural modulus					
73°F (23°C)	D 790	1000	kpsi	6.9	GPa
275°F (135°C)	D 790	790	kpsi	5.5	GPa
450°F (232°C)	D 790	720	kpsi	4.5	GPa
Izod impact strength					
Notched	D 256	1.2	ft-lb/in	63	J/m
Unnotched	D 256	7.6	ft-lb/in	404	J/m
Shear strength	D 732	16.1	kpsi	112	MPa
Compressive strength	D 695	24.1	kpsi	170	MPa
Compressive modulus	D 695	770	kpsi	5.3	GPa
Poisson's ratio		0.39		0.39	
Thermal					
Heat deflection temperature					
at 264 psi (1.82 MPa)	D 648	534	°F	279	°C
Flammability Rating	UL-94	94 V-0		94 V-0	
Coefficient of thermal expansion	D 696	14	10^{-6} in/in/°F	25.2	10^{-6} m/m/°C
Thermal conductivity	C 177	3.7	Btu-in/hr°Ft^2	0.54	W/mK
Oxygen index	D 2863	44	%	44	%
Electrical					
Dielectric constant					
at 1 kHz	D 150	6.0		6.0	
at 1 MHz	D 150	5.4		5.4	
Dissipation factor					
at 1 kHz	D 150	0.037		0.037	
at 1 MHz	D 150	0.042		0.042	
Surface resistivity	D 257	$8x10^{17}$	ohm	$8x10^{17}$	ohm
Volume resistivity	D 257	$3x10^{15}$	ohm-in	$8x10^{13}$	ohm-m
General					
Moisture absorption	D 570	0.28	%	0.28	%
Rockwell hardness	D 785	72		72	
Density	D 1505	0.053	lb/in^3	1.46	g/cm^3

[1]Actual properties of individual batches will vary within specification limits.

[2]Test methods are ASTM unless otherwise noted.