

Typical properties

	Item	Unit	Test method	TORAY PPS Resin TORELINA					
				GF40% A504-X90	GF40% A504-FG1	GF/Filler 55% A400MX05	GF/Filler 60% A310MX04	GF/Filler 60% A360M	
Physical	Density	g/cm ³	ISO1183	1.65	1.65	1.81	1.97	1.905	
	Water absorption	%	ISO62	0.02	0.02	0.02	0.02	0.02	
Mechanical	Tensile strength	Mpa	ISO527-1.2	194	167	165	146	138	
	Tensile strain at break	%	ISO527-1.2	1.7	1.4	1.1	0.9	0.9	
	Flexural strength	MPa	ISO178	305	252	250	236	218	
	Flexural modulus	Gpa	ISO178	15.8	15.2	18.3	21.8	18.2	
	Charpy impact (Notched)	J/m	ISO179-1	11	12	9.5	9	8.3	
	Rockwell hardness	R,M scale	ISO2039-2	R122	R123	R122	R123	R123	
Thermal	Temperature of deflection under load	0.45Mpa 1.8Mpa	C` C`	ISO75-1,2	>260	>260	>260	>260	>260
	Linear thermal expansion		× 10 ⁻⁵ /K	ISO11359-2	2.3/3.2	2.3/3.2	1.6/2.3	1.6/2.4	1.6/2.3
	Flammability		class/mm	UL94	V-0/0.28	V-0/0.28	V-0/0.36	V-0/0.36	V-0/0.71
Electrical	Electrical strength		kV/mm	IEC60243-1	22	22	20	20	-
	Arc resistance		s	ASTM D495	127	127	120	180	-
	Comparative tracking index		UL index	UL746A	4	4	4	3	3
	Volume resistivity		ΩmX10 ¹⁴	IEC60093	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹⁴
	Dielectric constant	10 ⁶ Hz		IEC60250	4.2	3.6	4.9	5.1	-
	Dissipation factor	10 ⁶ Hz		IEC60250	0.002	0.002	0.002	0.002	-
Moldability	Mold shrinkage	MD TD	% %		0.2 0.75	0.2 0.75	0.2 0.75	0.15 0.55	0.22 0.71
	Bar Flow (320°C, 93MPa, 1mmt)		X10 ⁻³ m	Toray method	135	210	111	105	110