

TORAY PPS Resin **TORELINA™**

TORAY PPS Resin "TORELINA" A504X90 made overseas

"TORELINA" A504X90 is GF40%-reinforced PPS
it is for injection molding applications.

Property	Test Condition	Test Method	Units	Value
				>PPS-GF 40 <
Physical				
Water Absorption	24hrs. In 23°C water	ISO 62	%	0.02
Density	23°C	ISO 1183	kg/m3	1670
Color	-	-	-	Natural / Black
Mechanical				
Tensile Strength	23°C	ISO527-1,2	MPa	195
Elongation at Break	23°C	ISO527-1,2	%	1.8
Flexural Strength	23°C	ISO178	MPa	295
Flexural Modulus	23°C	ISO178	GPa	15.0
Coefficient of friction	vs metal	-	-	0.25
Shear strength	23°C	-	MPa	80
Taper abrasion			mg/1000times	50
Rockwell Hardness	23°C	ISO2039-2	R-Scale	122
Charpy Impact Strength	V-notched 23°C	ISO179	kJ/m2	11
	Un-notched 23°C	ISO179	kJ/m2	55
Thermal				
Melting Temperature		ISO 11357-3	°C	278
Coef of Linear Thermal Expansion -40~150°C	Machine direction	ISO 11359-2	×10-5/K	2.3
	Transverse direction			3.1
Heat Deflection Temp.	1.80 MPa	ISO75-1,2	°C	>260
Flammability		UL94	rank/thicknessmm	V-0(0.28)
RTI(Electrical Strength)	0.28/0.71/1.5/3.0 mm	UL746B	°C	130/200/220/220
RTI(Mechanical Impact)	0.28/0.71/1.5/3.0 mm	UL746B	°C	130/200/200/200
RTI(Mechanical Strength)	0.28/0.71/1.5/3.0 mm	UL746B	°C	130/200/210/210
Electrical				
Volume Resistivity		IEC60093	Ω • m	1.0×10 14
Dielectric Strength		IEC60243-1	MV/m	24
Dielectric Constant	23°C, 60%RH, 1MHz	IEC60250	-	4.2
Dissipation Factor	23°C, 60%RH, 1MHz	IEC60250	-	0.002
Hot-wire Ignition (HWI)	0.71/1.5/3.0 mm	UL746A	PLC	1/0/0
High Amp Arc Ignition (HAI)	0.71/1.5/3.0 mm	UL746A	PLC	1/1/0
CTI		UL746	PLC	4
Molding				
Mold Shrinkage (80x80x3 mm Plate)	MD	Toray Method	%	0.2
	TD	Toray Method	%	0.8
Bar Flow direction(or Spiral Flow)	320°C,98MPa,1mm	Toray Method	×10-3m	135
Processing				
Process Temperature Range (Recommendation)			°C	300-340
Mold Temperature Range			°C	130-150
Drying Time, Dehumidified Dryer			h	3
Drying Temperature			°C	130-150

Please contact TORAY for SDS (Safety Data Sheet), general guides and additional information.

Note: These values are typical data for this product under specific test conditions and not intended for use as limiting specifications. The figures described herein are representative values of natural colors obtained based on the specific test method, and are NOT guaranteed values.