

TORELINA™ A504CX1B

Technical DataSheet | Supplied by Toray

TORELINA™ A504CX1B by Toray is a polyphenylene sulfide (PPS) grade reinforced with 40% glass fiber. It imparts flame retardancy, excellent electrical properties, high mechanical strength, excellent dimensional stability and moldability. TORELINA™ A504CX1B is suitable for automotive applications. It provides resistance to heat, hot water, chemicals and long life coolant (LLC). It is recommended for processing by injection molding.

Product Type	PPS (Polyphenylene Sulfide) > PPS
Appearance	Black
Product Status	COMMERCIAL
Applications/ Recommended for	Automotive Injection molding - thermoplastics
Key Features	Chemical resistance, High Dimensional stability, Good Electrical Properties, Good Filled, Glass Fiber Flame retarded Heat Resistance, High Moldability, Good Strength, High Water Resistance, High

TORELINA™ A504CX1B Properties

Physical	Value & Unit	Test Condition	Test Method
Linear Mold Shrinkage, Flow	0.2 %	80×80×3mm	
Linear Mold Shrinkage, Transverse	0.8 %	80×80×3mm	
Water Absorption	0.02 %	At 23°C, 24 hr	ISO 62
Density	1670 kg/m³	At 23°C	ISO 1183

Mechanical	Value & Unit	Test Condition	Test Method
Coefficient of Friction (COF)	0.25	Vs metal	
Hardness, Rockwell R	122		ISO 2039-2
Elongation at Break	1.7 %	At 23°C	ISO 527-1,2
Tensile Strength	190 MPa	At 23°C	ISO 527-1,2
Flexural Strength	290 MPa	At 23°C	ISO 178
Flexural Modulus	15 GPa	At 23°C	ISO 178
Shear Strength	75 MPa	At 23°C	JIS K7214
Impact Strength, Notched Charpy	11 kJ/m ²	At 23°C	ISO 179
Impact Strength, Unnotched Charpy	55 kJ/m ²	At 23°C	ISO 179

Thermal	Value & Unit	Test Condition	Test Method
Melting Point	278 °C		ISO 11357-3
CTE, Linear, Parallel to Flow	2.3 ×10 ⁻⁵ /K		ISO 11359-2
CTE, Linear, Transverse to Flow	3.1 ×10 ⁻⁵ /K		ISO 11359-2
Deflection Temperature at 1.8 MPa (264 psi)	260 °C		ISO 75-1,2

Flammability	Value & Unit	Test Condition	Test Method
Flame Rating, UL 94	V-0		UL 94

Electrical	Value & Unit	Test Condition	Test Method
Volume Resistivity	10 ¹⁴ ohm-m		IEC 60093
Dielectric Strength	24 MV/m		IEC 60243-1
Dielectric Constant	4.2	At 23°C, 60% RH, 1 MHz	IEC 60250
Dissipation Factor	0.002	At 23°C, 60% RH, 1 MHz	IEC 60250

TORELINATM A504CX1B Processing Guidelines

Injection Molding	Value & Unit	Test Condition	Test Method
Drying Temperature, Dehumidified Air Dryer	130 °C		
Cylinder Temperature	310 - 330 °C		
Mold Temperature	130 - 150 °C		
Injection Pressure	40 - 100 MPa		
Drying Time	3 - 4 hr		

Help us improve the Universal Selector

You can't find what you are looking for? Please report missing products / suppliers, point out errors, or simply tell us how