

Torelina® A504X90

Polyphenylene Sulfide

Toray Industries, Inc.

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

Torelina® A504X90 is a Polyphenylene Sulfide (PPS) product filled with 40% glass fiber. It is available in Asia Pacific, Europe, or North America. Applications of Torelina® A504X90 include automotive and electrical/electronic applications. Primary characteristic: flame rated.

General

Material Status	• Commercial: Active
Literature ¹	• Brochure - Metal Replacement (English) • Technical Datasheet (English)
UL Yellow Card ²	• E41797-233536
Search for UL Yellow Card	• Toray Industries, Inc. • Torelina®
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Uses	• Automotive Applications • Electrical Parts
Appearance	• Black • Natural Color
Part Marking Code	• >PPS-GF40<

Physical	Nominal Value Unit	Test Method
Density (23°C)	1.66 g/cm ³	ISO 1183
Molding Shrinkage ⁴		Internal Method
Across Flow : 3.00 mm	0.80 %	
Flow : 3.00 mm	0.20 %	
Water Absorption (24 hr, 23°C)	0.020 %	ISO 62
Mechanical	Nominal Value Unit	Test Method
Tensile Stress (23°C)	200 MPa	ISO 527-2
Tensile Strain (Break, 23°C)	1.8 %	ISO 527-2
Flexural Modulus (23°C)	15500 MPa	ISO 178
Flexural Stress (23°C)	305 MPa	ISO 178
Shear Strength (23°C)	80.0 MPa	JIS K7214
Coefficient of Friction ⁵	0.25	
Taber Abrasion Resistance (1000 Cycles)	50.0 mg	ISO 9352
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	11 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	55 kJ/m ²	ISO 179
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	122	ISO 2039-2
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		ISO 75-2/A
1.8 MPa, Unannealed	260 °C	
Melting Temperature	278 °C	ISO 11357-3
CLTE		ISO 11359-2
Flow	2.3E-5 cm/cm/°C	
Transverse	3.1E-5 cm/cm/°C	
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+14 ohms·cm	IEC 60093
Electric Strength	24 kV/mm	IEC 60243-1
Dielectric Constant ⁶ (23°C, 1 MHz)	4.20	IEC 60250
Dissipation Factor ⁶ (23°C, 1 MHz)	2.0E-3	IEC 60250
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.28 mm)	V-0	UL 94



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Additional Information	Nominal Value Unit	Test Method
Bar Flow Length ⁷ (320°C, 1.00 mm)	135 mm	Internal Method

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 80x80x3mm

⁵ vs. Metal

⁶ 60% RH

⁷ 98 MPa



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Where to Buy

Supplier

Toray Industries, Inc.

Tokyo, Japan

Web: <http://www.toray.jp/plastics/en/>

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0

Web: <http://www.albis.com/>

Availability: Austria, Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Hungary, Luxembourg, Netherlands, Poland, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Switzerland

Distrupol Ltd

Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.

Telephone: 08452003040

Web: <http://www.distrupol.com/>

Availability: Belgium, Luxembourg, Netherlands

ESSE International - OMYA

ESSE International - OMYA is a Pan European distribution company. Contact ESSE International - OMYA for availability of individual products by country.

Telephone: +33-1-30-80-56-56

Web: <http://www.omya.com>

Availability: France

GAZECHIM PLASTIQUES

GAZECHIM PLASTIQUES is a Pan European distribution company. Contact GAZECHIM PLASTIQUES for availability of individual products by country.

Telephone: +33-4-67-49-55-37

Web: <http://www.gazechim.com/>

Availability: France

Plastics Plus, Inc.

Telephone: 248-393-0300

Web: <http://www.plasplus.com/>

Availability: North America

