

TPX® RT18

Polymethylpentene Copolymer
Mitsui Chemicals America, Inc.

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

TPX® RT18 is a Polymethylpentene Copolymer (PMP Copolymer) material. It is available in North America for fiber (spinning) extrusion, film extrusion, or injection molding.

Important attributes of TPX® RT18 are:

- Chemical Resistant
- Heat Resistant
- Non-Toxic

Typical applications include:

- Food Contact Applications
- Consumer Goods
- Film
- Medical/Healthcare

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Extrusion (English) • Processing - Injection Molding (English) • Technical Datasheet (English)
UL Yellow Card ²	• E52579-242973
Search for UL Yellow Card	• Mitsui Chemicals America, Inc. • TPX®
Availability	• North America
Features	• Good Chemical Resistance • Good Thermal Stability • Non-Toxic
Uses	• Cosmetics • Film • Medical/Healthcare Applications
Agency Ratings	• EU 2002/72/EC • FDA Food Contact, Unspecified Rating • JHOSPA Unspecified Rating
Appearance	• Clear/Transparent
Forms	• Granules
Processing Method	• Fiber (Spinning) Extrusion • Film Extrusion • Injection Molding

	Nominal Value Unit	Test Method
Density	0.833 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	26 g/10 min	ASTM D1238
Spiral Flow ⁴	51.0 cm	Internal Method
Molding Shrinkage ⁵		Internal Method
Flow	1.5 %	
Across Flow	1.2 %	
Water Absorption (24 hr)	< 0.010 %	ASTM D570

	Nominal Value Unit	Test Method
Tensile Modulus (23°C)	1900 MPa	ASTM D638
Tensile Strength		ASTM D638
Yield, 23°C	30.0 MPa	
Break, 23°C	25.0 MPa	
Tensile Elongation (Break, 23°C)	12 %	ASTM D638
Flexural Modulus (23°C)	1600 MPa	ASTM D790
Flexural Strength (23°C)	46.0 MPa	ASTM D790

	Nominal Value Unit	Test Method
Notched Izod Impact (23°C)	20 J/m	ASTM D256
Unnotched Izod Impact Strength (23°C)	9.0 kJ/m ²	ASTM D256



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Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	87	ASTM D785
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	127 °C	ASTM D648
Vicat Softening Temperature	174 °C	ASTM D1525
Melting Temperature	233 °C	DSC
CLTE - Flow	1.2E-4 cm/cm/°C	ASTM D696
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	> 1.0E+16 ohms·cm	ASTM D257
Dielectric Strength	65 kV/mm	ASTM D149
Dielectric Constant	2.10	ASTM D150
Optical	Nominal Value Unit	Test Method
Refractive Index	1.460	ASTM D542
Transmittance	94.0 %	ASTM D1003
Haze	0.70 %	ASTM D1003

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 Mold Temperature: 73°C, Melt Temperature: 310 to 320°C

⁵ temperature range: 260 to 280°C



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Where to Buy

Supplier

Mitsui Chemicals America, Inc.

Purchase, NY USA

Telephone: 914-253-0777

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

Distributor

Chase Plastic Services, Inc.

Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here:

<http://www.chaseplastics.com/contact/locations>

Telephone: 800-232-4273

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

Availability: North America

PolySource

Telephone: 866-558-5300

Web: <http://www.polysource.net/>

Availability: North America

