

DuPont Performance Polymers Sorona® MT3401 NC010 Polytrimethylene Terephthalate (PTT) (Unverified Data**)

Category : Polymer , Renewable/Recycled Polymer , Thermoplastic , Polyester, TP , Polytrimethylene Terephthalate (PTT)

Material Notes:

Sorona® MT3401 NC010 is a medium toughened polytrimethylene terephthalate resin containing 29% renewably sourced ingredients by weight. It was initially coded SE38001. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Sorona-MT3401-NC010-Polytrimethylene-Terephthalate-PTT-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in ³	ISO 1183
Water Absorption	0.080 %	0.080 %	Immersion 24h; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.11 %	0.11 %	Equilibrium 50%RH; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage, Flow	0.34 %	0.34 %	Saturation, immersed; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage, Transverse	0.014 cm/cm	0.014 in/in	ISO 294-4
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Linear Mold Shrinkage, Flow	0.015 cm/cm	0.015 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Linear Mold Shrinkage, Transverse	0.020 cm/cm	0.020 in/in	ISO 294-4
	@Thickness 3.00 mm	@Thickness 0.118 in	
Linear Mold Shrinkage, Flow	0.014 cm/cm	0.014 in/in	ISO 294-4
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Linear Mold Shrinkage, Transverse	0.017 cm/cm	0.017 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Linear Mold Shrinkage, Flow	0.021 cm/cm	0.021 in/in	ISO 294-4
	@Thickness 3.00 mm	@Thickness 0.118 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	35.0 MPa	5080 psi	ISO 527

Mechanical Properties	@Temperature 23.0 °C Metric	@Temperature 73.4 °F English	Comments
Elongation at Break	15 % @Temperature 23.0 °C	15 % @Temperature 73.4 °F	nominal; ISO 527
	20 % @Temperature 23.0 °C	20 % @Temperature 73.4 °F	50mm/min; ISO 527
Elongation at Yield	5.0 % @Temperature 23.0 °C	5.0 % @Temperature 73.4 °F	ISO 527
Tensile Modulus	1.60 GPa @Temperature 23.0 °C	232 ksi @Temperature 73.4 °F	ISO 527
Flexural Modulus	1.60 GPa @Temperature 23.0 °C	232 ksi @Temperature 73.4 °F	ISO 178
Izod Impact, Notched (ISO)	18.0 kJ/m ² @Temperature 23.0 °C	8.57 ft-lb/in ² @Temperature 73.4 °F	ISO 180/1A
Charpy Impact, Notched	2.20 J/cm ² @Temperature 23.0 °C	10.5 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	500 µm/m-°C @Temperature 23.0 - 55.0 °C	278 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	138 µm/m-°C @Temperature 23.0 - 55.0 °C	76.7 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1/-2
Melting Point	229 °C	444 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	75.0 °C	167 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	53.0 °C	127 °F	ISO 75-1/-2
Flammability, UL94	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	IEC 60695-11-10
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	IEC 60695-11-10
	HB @Thickness 0.750 mm	HB @Thickness 0.0295 in	IEC 60695-11-10

Thermal Properties	Metric	English	Comments
	@Thickness 0.750 mm	@Thickness 0.0295 in	UL94
	HB	HB	UL94
	@Thickness 1.50 mm	@Thickness 0.0591 in	UL94
	HB	HB	UL94
	@Thickness 3.00 mm	@Thickness 0.118 in	UL94
Oxygen Index	<= 20 %	<= 20 %	ISO 4589-1/-2
Glow Wire Test	650 °C	1200 °F	IEC 60695-2-12
	@Thickness 3.00 mm	@Thickness 0.118 in	
	650 °C	1200 °F	IEC 60695-2-12
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	675 °C	1250 °F	IEC 60695-2-12
	@Thickness 1.00 mm	@Thickness 0.0394 in	
	675 °C	1250 °F	Ignition; IEC 60695-2-13
	@Thickness 3.00 mm	@Thickness 0.118 in	
	675 °C	1250 °F	Ignition; IEC 60695-2-13
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	700 °C	1290 °F	Ignition; IEC 60695-2-13
	@Thickness 1.00 mm	@Thickness 0.0394 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	6.00e+16 ohm-cm	6.00e+16 ohm-cm	IEC 60093
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Surface Resistance	6.00e+14 ohm	6.00e+14 ohm	IEC 60093
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Dielectric Constant	3.4	3.4	IEC 60250
	@Frequency 1.00e+6 Hz, Temperature 23.0 °C	@Frequency 1.00e+6 Hz, Temperature 73.4 °F	
	3.6	3.6	IEC 60250
	@Frequency 100 Hz, Temperature 23.0 °C	@Frequency 100 Hz, Temperature 73.4 °F	
	3.6	3.6	

Electrical Properties	Metric	English	Comments
	@Frequency 1000 Hz, Temperature 23.0 °C	@Frequency 1000 Hz, Temperature 73.4 °F	
Dielectric Strength	23.0 kV/mm	584 kV/in	IEC 60243-1
	@Thickness 2.00 mm, Temperature 90.0 °C	@Thickness 0.0787 in, Temperature 194 °F	
	24.0 kV/mm	610 kV/in	IEC 60243-1
	@Thickness 2.00 mm, Temperature 23.0 °C	@Thickness 0.0787 in, Temperature 73.4 °F	
	32.0 kV/mm	813 kV/in	IEC 60243-1
@Thickness 1.00 mm, Temperature 23.0 °C	@Thickness 0.0394 in, Temperature 73.4 °F		
Dissipation Factor	32.0 kV/mm	813 kV/in	IEC 60243-1
	@Thickness 1.00 mm, Temperature 90.0 °C	@Thickness 0.0394 in, Temperature 194 °F	
	0.0020	0.0020	IEC 60250
	@Frequency 100 Hz, Temperature 23.0 °C	@Frequency 100 Hz, Temperature 73.4 °F	
	0.0025	0.0025	IEC 60250
@Frequency 1000 Hz, Temperature 23.0 °C	@Frequency 1000 Hz, Temperature 73.4 °F		
Comparative Tracking Index	0.0205	0.0205	IEC 60250
	@Frequency 1.00e+6 Hz, Temperature 23.0 °C	@Frequency 1.00e+6 Hz, Temperature 73.4 °F	
	600 V	600 V	IEC 60112
@Temperature 23.0 °C	@Temperature 73.4 °F		

Processing Properties	Metric	English	Comments
Melt Temperature	260 °C	500 °F	Optimum
	250 - 270 °C	482 - 518 °F	
Mold Temperature	80.0 - 110 °C	176 - 230 °F	
	100 °C	212 °F	optimum
Drying Temperature	120 °C	248 °F	
Dry Time	4.00 hour	4.00 hour	
Moisture Content	<= 0.020 %	<= 0.020 %	

Descriptive Properties	Value	Comments
Additive	Impact Modifier	
	Lubricant	
Appearance	Natural Color	
Features	Chemical Resistance, Good	
	Dimensional Stability, Good	
	Gloss, High	
	Moisture Absorption, Low	
	Renewable Resource Content	
	Strength, Good	
	Toughness, Good	
Forms	Pellets	
Generic	PTT	
Material Status	Preliminary Data	
Part Marking Code	>PTT-I<	ISO 11469
Polymer Family	Polyester	
Polymer Type	PTT	
Processing Method	Injection Molding	
Product Category	Renewably Sourced Resins	
	Toughened Resins	
Region Available - Global	Yes	
Resin Identification	PTT-I	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Automotive Applications	
	Consumer Applications	
	General Purpose	
	Industrial Applications	
	Parts, Engineering	

Descriptive Properties	Value	Comments
	Parts, Machine/Mechanical	
	Sporting Goods	
	Toys	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China