DuPont Performance Polymers Crastin® SK643FR NC010 Polybutylene Terephthalate (PBT)

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), 20% Glass Fiber Filled

Material Notes:

20% Glass Reinforced Flame Retardant Polybutylene Terephthalate Crastin SK643FR is a flame retardant 20% glass reinforced polybutylene terephthalate molding resin. It is recognized as UL94V-0 at 0.8mm.Information provided by DuPont Performance Polymers

Order this product through the following link:
http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Crastin-SK643FR-NC010-Polybutylene-Terephthalate-PBT.php

Physical Properties	Metric	English	Comments
Density	1.63 g/cc	0.0589 lb/in³	ISO 1183
Water Absorption	0.32 % @Thickness 2.00 mm	0.32 % @Thickness 0.0787 in	Sim. to ISO 62
Moisture Absorption	0.130 % @Thickness 2.00 mm	0.130 % @Thickness 0.0787 in	Sim. to ISO 62
Linear Mold Shrinkage, Flow	0.0050 cm/cm	0.0050 in/in	ISO 294-4 2577
	0.0060 cm/cm	0.0060 in/in	annealed; ISO 294-4
Linear Mold Shrinkage, Transverse	0.012 cm/cm	0.012 in/in	ISO 294-4 2577
	0.0145 cm/cm	0.0145 in/in	annealed; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	113 MPa	16400 psi	ISO 527-1/-2
Tensile Stress	6.14 MPa @Strain 0.250 %, Temperature 160 °C	891 psi @Strain 0.250 %, Temperature 320 °F	ISO 11403-1 -2
	16.1 MPa @Strain 0.250 %, Temperature 40.0 °C	2340 psi @Strain 0.250 %, Temperature 104 °F	ISO 11403-1 -2
	20.0 MPa @Strain 0.250 %, Temperature 23.0 °C	2900 psi @Strain 0.250 %, Temperature 73.4 °F	ISO 11403-1 -2
	23.5 MPa @Strain 0.250 %, Temperature 0.000 °C	3410 psi @Strain 0.250 %, Temperature 32.0 °F	ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	24.8 MPa @Strain 0.250 %, Temperature -20.0 °C	3600 psi @Strain 0.250 %, Temperature -4.00 °F	ISO 11403-1 -2
	25.5 MPa @Strain 0.250 %, Temperature -40.0 °C	3700 psi @Strain 0.250 %, Temperature -40.0 °F	ISO 11403-1 -2
	26.3 MPa @Strain 1.50 %, Temperature 160 °C	3810 psi @Strain 1.50 %, Temperature 320 °F	ISO 11403-1 -2
	37.3 MPa @Strain 3.00 %, Temperature 160 °C	5410 psi @Strain 3.00 %, Temperature 320 °F	ISO 11403-1 -2
	77.7 MPa @Strain 1.50 %, Temperature 40.0 °C	11300 psi @Strain 1.50 %, Temperature 104 °F	ISO 11403-1 -2
	86.8 MPa @Strain 1.50 %, Temperature 23.0 °C	12600 psi @Strain 1.50 %, Temperature 73.4 °F	ISO 11403-1 -2
	104 MPa @Strain 1.50 %, Temperature 0.000 °C	15100 psi @Strain 1.50 %, Temperature 32.0 °F	ISO 11403-1 -2
	108 MPa @Strain 1.50 %, Temperature -20.0 °C	15700 psi @Strain 1.50 %, Temperature -4.00 °F	ISO 11403-1 -2
	111 MPa @Strain 1.50 %, Temperature -40.0 °C	16100 psi @Strain 1.50 %, Temperature -40.0 °F	ISO 11403-1 -2
Elongation at Break	3.0 %	3.0 %	ISO 527-1/-2
Tensile Modulus	8.50 GPa	1230 ksi	ISO 527-1/-2
Flexural Strength	170 MPa	24700 psi	ISO 178
Secant Modulus	1.62 GPa @Strain 3.50 %, Temperature 100 °C	235 ksi @Strain 3.50 %, Temperature 212 °F	ISO 11403-1 -2
	1.81 GPa @Strain 3.50 %, Temperature 80.0 °C	263 ksi @Strain 3.50 %, Temperature 176 °F	ISO 11403-1 -2
	2.84 GPa	412 ksi	

Mechanical Properties	Metric	English	Comments
	@Strain 1.50 %, Temperature 100 °C	@Strain 1.50 %, Temperature 212 °F	ISO 11403-1 -2
	3.03 GPa @Strain 1.50 %, Temperature 80.0 °C	439 ksi @Strain 1.50 %, Temperature 176 °F	ISO 11403-1 -2
	3.94 GPa @Strain 0.250 %, Temperature 100 °C	571 ksi @Strain 0.250 %, Temperature 212 °F	ISO 11403-1 -2
	4.24 GPa @Strain 0.250 %, Temperature 80.0 °C	615 ksi @Strain 0.250 %, Temperature 176 °F	ISO 11403-1 -2
	5.18 GPa @Strain 1.50 %, Temperature 40.0 °C	751 ksi @Strain 1.50 %, Temperature 104 °F	ISO 11403-1 -2
	5.79 GPa @Strain 1.50 %, Temperature 23.0 °C	839 ksi @Strain 1.50 %, Temperature 73.4 °F	ISO 11403-1 -2
	6.44 GPa @Strain 0.250 %, Temperature 40.0 °C	934 ksi @Strain 0.250 %, Temperature 104 °F	ISO 11403-1 -2
	6.93 GPa @Strain 1.50 %, Temperature 0.000 °C	1010 ksi @Strain 1.50 %, Temperature 32.0 °F	ISO 11403-1 -2
	7.20 GPa @Strain 1.50 %, Temperature -20.0 °C	1040 ksi @Strain 1.50 %, Temperature -4.00 °F	ISO 11403-1 -2
	7.40 GPa @Strain 1.50 %, Temperature -40.0 °C	1070 ksi @Strain 1.50 %, Temperature -40.0 °F	ISO 11403-1 -2
	8.00 GPa @Strain 0.250 %, Temperature 23.0 °C	1160 ksi @Strain 0.250 %, Temperature 73.4 °F	ISO 11403-1 -2
	9.40 GPa @Strain 0.250 %, Temperature 0.000 °C	1360 ksi @Strain 0.250 %, Temperature 32.0 °F	ISO 11403-1 -2
	9.92 GPa @Strain 0.250 %, Temperature -20.0 °C	1440 ksi @Strain 0.250 %, Temperature -4.00 °F	ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	@Strain 0.250 %, Temperature -40.0 °C	@Strain 0.250 %, Temperature -40.0 °F	ISO 11403-1 -2
Izod Impact, Notched (ISO)	8.00 kJ/m²	3.81 ft-lb/in²	ISO 180/1A
	7.00 kJ/m² @Temperature -30.0 °C	3.33 ft-lb/in² @Temperature -22.0 °F	ISO 180/1A
Izod Impact, Unnotched (ISO)	36.0 kJ/m²	17.1 ft-lb/in²	ISO 180/1U
	35.0 kJ/m² @Temperature -30.0 °C	16.7 ft-lb/in² @Temperature -22.0 °F	ISO 180/1U
Charpy Impact Unnotched	5.50 J/cm²	26.2 ft-lb/in²	ISO 179/1eU
	5.30 J/cm² @Temperature -30.0 °C	25.2 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	0.850 J/cm²	4.04 ft-lb/in²	ISO 179/1eA
	0.780 J/cm² @Temperature -30.0 °C	3.71 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eA
Tensile Creep Modulus, 1 hour	7200 MPa @Time 3600 sec	1.04e+6 psi @Time 1.00 hour	ISO 899-1
Tensile Creep Modulus, 1000 hours	5500 MPa @Time 3.60e+6 sec	798000 psi @Time 1000 hour	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	40.0 µm/m-°C	22.2 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	100 µm/m-°C	55.6 µin/in-°F	ISO 11359-1/-2
	100 µm/m-°C @Temperature -40.0 °C	55.6 µin/in-°F @Temperature -40.0 °F	ISO 11403-1 -2
	100 µm/m-°C @Temperature 23.0 °C	55.6 µin/in-°F @Temperature 73.4 °F	ISO 11403-1 -2
	100 µm/m-°C @Temperature 55.0 °C	55.6 µin/in-°F @Temperature 131 °F	ISO 11403-1 -2
Melting Point	225 °C	437 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa			ISO 75-1/-2

Thermal Properties	Metric	English	Comments
(66 psi)	220 °C	428 °F	
Deflection Temperature at 1.8 MPa (264 psi)	205 °C	401 °F	ISO 75-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.00e+15 ohm	1.00e+15 ohm	IEC 60093
Dielectric Constant	3.7 @Frequency 1.00e+6 Hz	3.7 @Frequency 1.00e+6 Hz	IEC 60250
	3.8 @Frequency 100 Hz	3.8 @Frequency 100 Hz	IEC 60250
Dielectric Strength	28.0 kV/mm	711 kV/in	IEC 60243-1
Dissipation Factor	0.0030 @Frequency 100 Hz	0.0030 @Frequency 100 Hz	IEC 60250
	0.016 @Frequency 1.00e+6 Hz	0.016 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	250 V	250 V	IEC 60112

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