DuPont Performance Polymers Crastin® HR5315HF BK503 PBT (Unverified Data**)

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

Material Notes:

Crastin® HR5315HF is a 15% glass reinforced PBT with high flow (HF), moderately toughened, hydrolysis resistant (HR) resin. Excellent balance of properties between terminal pullout and impact resistance. Developed for USCAR Class 3 and 4 environments.Information provided by DuPont Performance Polymers

Order this product through the following link:
http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Crastin-HR5315HF-BK503-PBT-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.37 g/cc	0.0495 lb/in³	ISO 1183
Filler Content	15 %	15 %	
Water Absorption	0.080 % @Temperature 23.0 °C	0.080 % @Temperature 73.4 °F	Immersion 24h; ISO 62, Similar to
Linear Mold Shrinkage, Flow	0.0050 cm/cm @Thickness 2.00 mm	0.0050 in/in @Thickness 0.0787 in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.011 cm/cm @Thickness 2.00 mm	0.011 in/in @Thickness 0.0787 in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	117	117	ISO 2039/2
Tensile Strength at Break	92.0 MPa @Temperature 23.0 °C	13300 psi @Temperature 73.4 °F	ISO 527
Elongation at Break	3.0 % @Temperature 23.0 °C	3.0 % @Temperature 73.4 °F	ISO 527
Tensile Modulus	5.20 GPa @Temperature 23.0 °C	754 ksi @Temperature 73.4 °F	ISO 527
Flexural Modulus	4.70 GPa @Temperature 23.0 °C	682 ksi @Temperature 73.4 °F	ISO 178
Izod Impact, Notched (ISO)	6.00 kJ/m² @Temperature -40.0 °C	2.86 ft-lb/in² @Temperature -40.0 °F	ISO 180/1A
	10.0 kJ/m²	4.76 ft-lb/in²	

Mechanical Properties	Metric	English	Comments
	@Temperature 23.0 °C	@Temperature 73.4 °F	ISO 180/1A
Izod Impact, Unnotched (ISO)	40.0 kJ/m² @Temperature 23.0 °C	19.0 ft-lb/in² @Temperature 73.4 °F	ISO 180/1U
Charpy Impact Unnotched	5.00 J/cm² @Temperature 23.0 °C	23.8 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.600 J/cm² @Temperature -30.0 °C	2.86 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eA
	1.00 J/cm² @Temperature 23.0 °C	4.76 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	225 °C	437 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	220 °C	428 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	200 °C	392 °F	ISO 75-1/-2
Oxygen Index	20 %	20 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm @Temperature 23.0 °C	>= 1.00e+15 ohm-cm @Temperature 73.4 °F	IEC 60093
Surface Resistance	1.00e+17 ohm @Temperature 23.0 °C	1.00e+17 ohm @Temperature 73.4 °F	IEC 60093
Dielectric Constant	3.7 @Frequency 1.00e+6 Hz, Temperature 23.0 °C	3.7 @Frequency 1.00e+6 Hz, Temperature 73.4 °F	IEC 60250
	3.8 @Frequency 1000 Hz, Temperature 23.0 °C	3.8 @Frequency 1000 Hz, Temperature 73.4 °F	IEC 60250
Dielectric Strength	25.3 kV/mm @Temperature 23.0 °C	643 kV/in @Temperature 73.4 °F	Short Time; ASTM D149
Dissipation Factor	0.0030 @Frequency 1000 Hz, Temperature 23.0 °C	0.0030 @Frequency 1000 Hz, Temperature 73.4 °F	IEC 60250

Electrical Properties	Metric	English	Comments
	@Frequency 1.00e+6 Hz, Temperature 23.0 °C	@Frequency 1.00e+6 Hz, Temperature 73.4 °F	IEC 60250
Comparative Tracking Index	325 V @Temperature 23.0 °C	325 V @Temperature 73.4 °F	IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	250 °C	482 °F	Optimum
	240 - 260 °C	464 - 500 °F	
Mold Temperature	80.0 °C	176 °F	optimum
	30.0 - 130 °C	86.0 - 266 °F	
Drying Temperature	110 - 130 °C	230 - 266 °F	
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	
Moisture Content	<= 0.040 %	<= 0.040 %	

Descriptive Properties	Value	Comments
Additive	Hydrolysis Resistant	
	Lubricant	
Appearance	Black Color	
Drying Recommended	Yes	
Features	Chemical Resistance, Good	
	Dimensional Stability, Good	
	Flow, High	
	Hydrolysis Resistant	
	Moisture Absorption, Low	
	Processability, Good	
	Viscosity, Low	
Filler	Glass fiber reinforcement	
Forms	Pellets	

Generic Descriptive Properties	PBT Value	Comments
Material Status	Current	
Part Marking Code	>PBT-IGF15<	ISO 11469
Polymer Family	Polyester	
Polymer Type	PBT	
Processing Method	Injection Molding	
Product Category	Glass Reinforced Resins	
	Hydrolysis Resistant Resins	
Region Available - Global	Yes	
Resin Identification	PBT-IGF15	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Automotive Applications	
	Connectors	
	Electrical/Electronic Applications	
	Industrial Applications	
	Parts, Engineering	
	Parts, Industrial	
	Parts, Machine/Mechanical	

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