

DuPont Performance Polymers Rynite® 415HP BK503 PET (Unverified Data**)

Category : Polymer , Thermoplastic , Polyester, TP , Polyethylene Terephthalate (PET) , Polyethylene Terephthalate (PET), 20% Glass Reinforced

Material Notes:

Rynite® 415HP BK503 is a 15% glass reinforced modified polyethylene terephthalate with improved for easy, fast processing over a broad molding range with excellent balance of strength, stiffness, and temperature resistance. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Rynite-415HP-BK503-PET-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.39 g/cc	0.0502 lb/in ³	ISO 1183
Filler Content	15 %	15 %	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	80.0 MPa @Temperature 23.0 °C	11600 psi @Temperature 73.4 °F	ISO 527
Elongation at Break	5.0 % @Temperature 23.0 °C	5.0 % @Temperature 73.4 °F	ISO 527
Tensile Modulus	4.50 GPa @Temperature 23.0 °C	653 ksi @Temperature 73.4 °F	ISO 527
Flexural Modulus	4.00 GPa @Temperature 23.0 °C	580 ksi @Temperature 73.4 °F	ISO 178
Izod Impact, Notched (ISO)	11.0 kJ/m ² @Temperature 23.0 °C	5.23 ft-lb/in ² @Temperature 73.4 °F	ISO 180/1A
Charpy Impact Unnotched	5.50 J/cm ² @Temperature 23.0 °C	26.2 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	1.10 J/cm ² @Temperature 23.0 °C	5.23 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	250 °C	482 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 1.8 MPa (264 psi)	190 °C	374 °F	ISO 75-1/-2
	140 °C	284 °F	

UL RTI Electrical Thermal Properties	Metric @Thickness 3.00 mm	English @Thickness 0.118 in	UL 746B Comments
	140 °C @Thickness 0.750 mm	284 °F @Thickness 0.0295 in	UL 746B
	140 °C @Thickness 1.50 mm	284 °F @Thickness 0.0591 in	UL 746B
UL RTI, Mechanical with Impact	120 °C @Thickness 0.750 mm	248 °F @Thickness 0.0295 in	UL 746B
	120 °C @Thickness 1.50 mm	248 °F @Thickness 0.0591 in	UL 746B
	120 °C @Thickness 3.00 mm	248 °F @Thickness 0.118 in	UL 746B
UL RTI, Mechanical without Impact	140 °C @Thickness 3.00 mm	284 °F @Thickness 0.118 in	UL 746B
	140 °C @Thickness 1.50 mm	284 °F @Thickness 0.0591 in	UL 746B
	140 °C @Thickness 0.750 mm	284 °F @Thickness 0.0295 in	UL 746B
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
	HB @Thickness 0.750 mm	HB @Thickness 0.0295 in	UL94
	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	UL94
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	UL94
Glow Wire Test	675 °C @Thickness 0.750 mm	1250 °F @Thickness 0.0295 in	IEC 60695-2-12

Thermal Properties	Metric	English	Comments
	@Thickness 1.50 mm	@Thickness 0.0591 in	IEC 60695-2-12
	700 °C	1290 °F	Ignition; IEC 60695-2-13
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	700 °C	1290 °F	Ignition; IEC 60695-2-13
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	750 °C	1380 °F	IEC 60695-2-12
	@Thickness 3.00 mm	@Thickness 0.118 in	
	775 °C	1430 °F	Ignition; IEC 60695-2-13
	@Thickness 3.00 mm	@Thickness 0.118 in	

Processing Properties	Metric	English	Comments
Melt Temperature	280 °C	536 °F	Optimum
	270 - 290 °C	518 - 554 °F	
Mold Temperature	>= 95.0 °C	>= 203 °F	
	110 °C	230 °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
Appearance	Black Color	
Drying Recommended	Yes	
Features	Creep Resistance, Good	
	Dimensional Stability, Good	
	Electrical Properties, Good	
	Stiffness, Good	
	Strength, Good	
	Thermal Aging Resistance, Good	
Filler	Glass fiber reinforcement	

Descriptive Properties	Value	Comments
	Pellets	
Generic	PET	
Material Status	Current	
Part Marking Code	>PET-IGF15<	ISO 11469
Polymer Family	Polyester	
Polymer Type	PET	
Processing Method	Injection Molding	
Product Category	Glass Reinforced Resins	
	Toughened Resins	
Region Available - Global	Yes	
Resin Identification	PET-IGF15	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Automotive Applications	
	Electrical/Electronic Applications	
	Housings	
	Phenolic Replacement	
	Structural Parts	

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