

DuPont Performance Polymers Rynite® 530 BK503 PET (Unverified Data**)

Category : Polymer , Thermoplastic , Polyester, TP , Polyethylene Terephthalate (PET) , Polyethylene Terephthalate (PET), 30% Glass Reinforced

Material Notes:

Rynite® 530 BK503 is a 30% glass reinforced modified polyethylene terephthalate with outstanding balance of strength, stiffness, and toughness, excellent electrical properties, surface appearance, and chemical resistance. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Rynite-530-BK503-PET-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.56 g/cc	0.0564 lb/in ³	ISO 1183
Filler Content	30 %	30 %	
Linear Mold Shrinkage, Flow	0.0030 cm/cm @Thickness 2.00 mm	0.0030 in/in @Thickness 0.0787 in	ISO 294-4, Similar
Linear Mold Shrinkage, Transverse	0.0090 cm/cm @Thickness 2.00 mm	0.0090 in/in @Thickness 0.0787 in	ISO 294-4, Similar

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	150 MPa @Temperature 23.0 °C	21800 psi @Temperature 73.4 °F	ISO 527
Elongation at Break	2.1 % @Temperature 23.0 °C	2.1 % @Temperature 73.4 °F	ISO 527
Tensile Modulus	10.2 GPa @Temperature 23.0 °C	1480 ksi @Temperature 73.4 °F	ISO 527
Flexural Strength	210 MPa @Temperature 23.0 °C	30500 psi @Temperature 73.4 °F	ISO 178
Flexural Modulus	3.00 GPa @Temperature 150 °C	435 ksi @Temperature 302 °F	ISO 178
	5.165 GPa @Temperature 90.0 °C	749.1 ksi @Temperature 194 °F	ISO 178
	8.94 GPa @Temperature 23.0 °C	1300 ksi @Temperature 73.4 °F	ISO 178
	10.367 GPa	1503.6 ksi	

Mechanical Properties	Metric	English	ISO 178 Comments
Izod Impact, Notched (ISO)	8.50 kJ/m ²	4.04 ft-lb/in ²	ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	9.50 kJ/m ²	4.52 ft-lb/in ²	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched (ISO)	35.0 kJ/m ²	16.7 ft-lb/in ²	ISO 180/1U
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	45.0 kJ/m ²	21.4 ft-lb/in ²	ISO 180/1U
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	4.50 J/cm ²	21.4 ft-lb/in ²	ISO 179/1eU
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	5.20 J/cm ²	24.7 ft-lb/in ²	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.800 J/cm ²	3.81 ft-lb/in ²	ISO 179/1eA
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.850 J/cm ²	4.04 ft-lb/in ²	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.950 J/cm ²	4.52 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	244 °C	471 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	221 °C	430 °F	ISO 75-1/-2
UL RTI, Electrical	140 °C	284 °F	UL 746B
	@Thickness 0.810 mm	@Thickness 0.0319 in	
	140 °C	284 °F	UL 746B
	@Thickness 6.00 mm	@Thickness 0.236 in	
	140 °C	284 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Thermal Properties	140 °C Metric	284 °F English	Comments
	@Thickness 2.00 mm	@Thickness 0.0787 in	
UL RTI, Mechanical with Impact	140 °C	284 °F	UL 746B
	140 °C	284 °F	UL 746B
	@Thickness 0.810 mm	@Thickness 0.0319 in	
	140 °C	284 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	140 °C	284 °F	UL 746B
	@Thickness 2.00 mm	@Thickness 0.0787 in	
	140 °C	284 °F	UL 746B
	@Thickness 6.00 mm	@Thickness 0.236 in	
UL RTI, Mechanical without Impact	140 °C	284 °F	UL 746B
	140 °C	284 °F	UL 746B
	@Thickness 2.00 mm	@Thickness 0.0787 in	
	140 °C	284 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	140 °C	284 °F	UL 746B
	@Thickness 0.810 mm	@Thickness 0.0319 in	
	140 °C	284 °F	UL 746B
	@Thickness 6.00 mm	@Thickness 0.236 in	
Flammability, UL94	HB	HB	UL94
	@Thickness 2.00 mm	@Thickness 0.0787 in	
	HB	HB	UL94
	@Thickness 0.810 mm	@Thickness 0.0319 in	
	HB	HB	UL94
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	UL94
	@Thickness 3.00 mm	@Thickness 0.118 in	
	HB	HB	UL94
	@Thickness 6.00 mm	@Thickness 0.236 in	
	HB	HB	

Thermal Properties	Metric	English	IEC 60695-11-10 Comments
	HB @Thickness 6.00 mm	HB @Thickness 0.236 in	IEC 60695-11-10
	HB @Thickness 3.00 mm	HB @Thickness 0.118 in	IEC 60695-11-10
	HB @Thickness 2.00 mm	HB @Thickness 0.0787 in	IEC 60695-11-10
	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	IEC 60695-11-10
	HB @Thickness 0.810 mm	HB @Thickness 0.0319 in	IEC 60695-11-10
Glow Wire Test	800 °C @Thickness 2.00 mm	1470 °F @Thickness 0.0787 in	IEC 60695-2-12
	825 °C @Thickness 2.00 mm	1520 °F @Thickness 0.0787 in	Ignition; IEC 60695-2-13

Electrical Properties	Metric	English	Comments
Dielectric Strength	22.0 kV/mm @Thickness 2.00 mm, Temperature 23.0 °C	559 kV/in @Thickness 0.0787 in, Temperature 73.4 °F	2000 V/s, in oil; IEC 60243-1

Processing Properties	Metric	English	Comments
Melt Temperature	285 °C	545 °F	Optimum
	280 - 300 °C	536 - 572 °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	Electrical Properties, Good	

Descriptive Properties	Value	Comments
	Fatigue Resistance	
	Stiffness, Good	
	Strength, Good	
	Thermal Aging Resistance, Good	
Filler	Glass fiber reinforcement	
Forms	Pellets	
	Pellets	
Generic	PET	
Material Status	Current	
Part Marking Code	>PET-GF30<	ISO 11469
Polymer Family	Polyester	
Polymer Type	PET	
Processing Method	Injection Molding	
Product Category	Glass Reinforced Resins	
Region Available - Global	Yes	
Resin Identification	PET-GF30	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Automotive Applications	
	Electrical/Electronic Applications	
	Housings	
	Phenolic Replacement	
	Structural Parts	

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