

DuPont Performance Polymers Rynite® FR515 BK507 PET (Unverified Data**)

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

Material Notes:

Rynite® FR515 BK507 is a flame retardant 15% glass reinforced modified polyeththylene terephthalate. Recognized by UL as UL94V-0 at 0.8mm(0.03in). Has a 140C temp index. Excellent balance of electrical and mechanical prop. High temp. resistance and flow. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Rynite-FR515-BK507-PET-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.55 g/cc	0.0560 lb/in ³	ISO 1183
Filler Content	15 %	15 %	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	100 MPa	14500 psi	ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	125 MPa	18100 psi	ISO 527
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Elongation at Break	2.0 %	2.0 %	ISO 527
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	2.2 %	2.2 %	ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Modulus	3.59 GPa	521 ksi	ISO 527
	@Temperature 150 °C	@Temperature 302 °F	
	6.135 GPa	889.8 ksi	ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	7.721 GPa	1120 ksi	ISO 527
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Flexural Strength	160 MPa	23200 psi	ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	180 MPa	26100 psi	ISO 178
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	6.00 GPa	870 ksi	

Flexural Modulus Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	ISO 178 Comments
	6.737 GPa	977.1 ksi	ISO 178
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Izod Impact, Notched (ISO)	5.00 kJ/m ²	2.38 ft-lb/in ²	ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	5.50 kJ/m ²	2.62 ft-lb/in ²	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched (ISO)	18.0 kJ/m ²	8.57 ft-lb/in ²	ISO 180/1U
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	26.0 kJ/m ²	12.4 ft-lb/in ²	ISO 180/1U
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	2.00 J/cm ²	9.52 ft-lb/in ²	ISO 179/1eU
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	3.20 J/cm ²	15.2 ft-lb/in ²	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.600 J/cm ²	2.86 ft-lb/in ²	ISO 179/1eA
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.620 J/cm ²	2.95 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	
	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
CTE, linear, Transverse to Flow	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature 55.0 - 160 °C	@Temperature 131 - 320 °F	
	74.0 µm/m-°C	41.1 µin/in-°F	ISO 11359-1/-2
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	

Thermal Properties	95.0 µm/m-°C Metric	52.8 µin/in-°F English	Comments ISO 11359-1/-2
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
	125 µm/m-°C	69.4 µin/in-°F	ISO 11359-1/-2
	@Temperature 55.0 - 160 °C	@Temperature 131 - 320 °F	
Melting Point	254 °C	489 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	238 °C	460 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	200 °C	392 °F	ISO 75-1/-2
UL RTI, Electrical	140 °C	284 °F	UL 746B
	@Thickness 0.860 mm	@Thickness 0.0339 in	
UL RTI, Mechanical with Impact	140 °C	284 °F	UL 746B
	@Thickness 0.860 mm	@Thickness 0.0339 in	
UL RTI, Mechanical without Impact	140 °C	284 °F	UL 746B
	@Thickness 0.860 mm	@Thickness 0.0339 in	
Flammability, UL94	V-0	V-0	IEC 60695-11-10
	@Thickness 0.860 mm	@Thickness 0.0339 in	
	V-0	V-0	IEC 60695-11-10
	@Thickness 3.00 mm	@Thickness 0.118 in	
	V-0	V-0	UL94
	@Thickness 3.00 mm	@Thickness 0.118 in	
	V-0	V-0	UL94
	@Thickness 0.860 mm	@Thickness 0.0339 in	
	5VA	5VA	IEC 60695-11-20
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	5VA	5VA	IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	5VA	5VA	UL94
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Electrical Properties	Metric	English	Comments
	175 - 250 V	175 - 250 V	

Comparative Tracking Index Electrical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	UL 746A Comments
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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
Additive	Flame Retardant	
Appearance	Black Color	
Drying Recommended	Yes	
Features	Dimensional Stability, Good	
	Electrical Properties, Good	
	Flame Retardant	
	Stiffness, Good	
	Strength, Good	
	Thermal Aging Resistance, Good	
Filler	Glass fiber reinforcement	
	Glass Reinforced	
Forms	Pellets	
Generic	PET	
Material Status	Current	
Part Marking Code	>PET-GF15FR(17)<	ISO 11469
Processing Method	Injection Molding	
Product Category	Flame Retardant Resins	

Descriptive Properties	Value Reinforced Resins	Comments
Region Available - Global	Yes	
Resin Identification	PET-GF15FR(17)	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Appliances	
	Electrical Parts	
	Electrical/Electronic Applications	
	Phenolic Replacement	
	Structural Parts	

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