DuPont™ Rynite® FR515 BK507

THERMOPLASTIC POLYESTER RESIN

Product Information

Common features of Rynite® thermoplastic polyester include mechanical and physical properties such as excellent balance of strength and stiffness, dimensional stability, creep resistance, heat resistance, high surface gloss and good inherent electrical properties at elevated temperature. It can be processed over a broad temperature range and has excellent flow properties.

Rynite® thermoplastic polyester resins are typically used in demanding applications in the automotive, electrical and electronics, appliances where they successfully replace metals and thermosets, as well as other thermoplastic polymers.

Rynite® FR515 BK507 is a 15% glass reinforced, flame retardant modified polyethylene terephthalate resin.

General information	Value	Unit	Test Standard
Resin Identification	PET-GF15FR(17)	-	-
Part Marking Code	>PET-GF15FR<	-	ISO 11469
Mechanical properties	**Value**	**Unit**	**Test Standard**
Tensile Modulus	6135	MPa	ISO 527-1/-2
Stress at break	100	MPa	ISO 527-1/-2
Strain at break	2.2	%	ISO 527-1/-2
Flexural Modulus	6000	MPa	ISO 178
Flexural Strength	160	MPa	ISO 178
Charpy impact strength			ISO 179/1eU
23°C	32	kJ/m²	
-40°C	20	kJ/m²	
Charpy notched impact strength			ISO 179/1eA
23°C	6.2	kJ/m²	
-40°C	6	kJ/m²	
Thermal properties	**Value**	**Unit**	**Test Standard**
Melting temperature, 10°C/min	254	°C	ISO 11357-1/-3
Temp. of deflection under load			ISO 75-1/-2
1.8 MPa	200	°C	
0.45 MPa	238	°C	
Coeff. of linear therm. expansion, parallel	29	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	95	E-6/K	
Normal, -40-23°C	74	E-6/K	
Normal, 55-160°C	125	E-6/K	
Parallel, -40-23°C	33	E-6/K	
Parallel, 55-160°C	19	E-6/K	
RTI, electrical, 0.8mm	140	°C	UL 746B
RTI, impact, 0.8mm	140	°C	UL 746B
RTI, strength, 0.8mm	140	°C	UL 746B
Flammability	**Value**	**Unit**	**Test Standard**
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	UL	-	-
Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.9	mm	IEC 60695-11-10
UL recognition	UL	-	-
Burning Behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	1.5	mm	IEC 60695-11-20
UL recognition	UL	-	-
Electrical properties	**Value**	**Unit**	**Test Standard**
CTI, 23°C	3	PLC	UL 746A
Other properties	**Value**	**Unit**	**Test Standard**
Density	1550	kg/m³	ISO 1183

To find out more, visit DuPont Performance Polymers or contact nearest DuPont location.

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Toll-Free (USA): 800 441-0575

Asia Pacific
Tel: +81 3 5521 8600

Europe/Middle East/Africa
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Characteristics			
Processing	• Injection Moulding		
Regional Availability	• North America • Europe	• Asia Pacific • South and Central America	• Near East/Africa • Global

Processing Texts

Injection molding

PREPROCESSING

Drying recommended = Yes
Drying temperature = 120°C
Drying time, dehumidified dryer = 4 h

Processing moisture content ≤0.02 %
At levels above 0.02%, strength and toughness will decrease, even though parts may not exhibit surface defects.

PROCESSING

Melt temperature optimum = 280°C
Melt temperature range = 270-290°C

Mold temperature range = 90-110°C (6mm - 1mm thickness)
When lower mold temperatures are used, the initial shrinkage and warpage will be lower, but the surface appearance may be poorer and the dimensional change may be greater when the parts are subsequently heated.

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 4.0mm (Hytrel® measured at 2 mm), IEC Electrical properties measured at 2.0mm, all ASTM properties measured at 3.2mm, and test temperatures are 23°C unless otherwise stated.

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