



Crastin® S660FR BK507

DuPont Engineering Polymers - Polybutylene Terephthalate

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General Information

Product Description

Crastin® S660FR BK507 is an unreinforced, flame retardant, lubricated, black polybutylene terephthalate resin for injection molding. It is recognized by UL as UL94V-0 at 0.40mm (0.016in).

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Lubricant		
Features	• Flame Retardant • Good Chemical Resistance	• Good Dimensional Stability • Good Processability	• Low Moisture Absorption • Lubricated
Uses	• Connectors	• Electrical/Electronic Applications	
RoHS Compliance	• Contact Manufacturer		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Part Marking Code (ISO 11469)	• >PBT-FR(17)<		
Resin ID (ISO 1043)	• PBT-FR(17)		

ASTM and ISO Properties ¹

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.47 g/cm ³	1.47 g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow, 0.0787 in (2.00 mm)	2.0 %	2.0 %	
Flow, 0.0787 in (2.00 mm)	1.9 %	1.9 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73 °F (23 °C))	421000 psi	2900 MPa	ISO 527-1, -2
Tensile Stress (Yield, 73 °F (23 °C))	7540 psi	52.0 MPa	ISO 527-1, -2
Tensile Strain (Yield, 73 °F (23 °C))	3.5 %	3.5 %	ISO 527-1, -2
Nominal Tensile Strain at Break			ISO 527-1, -2
73 °F (23 °C)	10 %	10 %	
Flexural Modulus (73 °F (23 °C))	392000 psi	2700 MPa	ISO 178
Flexural Strength (73 °F (23 °C))	12300 psi	85.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22 °F (-30 °C)	1.67 ft·lb/in ²	3.50 kJ/m ²	
73 °F (23 °C)	1.90 ft·lb/in ²	4.00 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
73 °F (23 °C)	28.6 ft·lb/in ²	60.0 kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-40 °F (-40 °C)	1.90 ft·lb/in ²	4.00 kJ/m ²	
73 °F (23 °C)	1.90 ft·lb/in ²	4.00 kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
73 °F (23 °C)	19.0 ft·lb/in ²	40.0 kJ/m ²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature 66 psi (0.45 MPa), Unannealed	329 °F	165 °C	ISO 75B-1, -2
Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed	131 °F	55.0 °C	ISO 75A-1, -2
Melting Temperature (DSC)	437 °F	225 °C	ISO 3146
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating - UL			UL 94
0.0157 in (0.400 mm)	V-0	V-0	
0.0295 in (0.750 mm)	V-0	V-0	
0.0591 in (1.50 mm)	V-0	V-0	
0.118 in (3.00 mm)	V-0	V-0	
Flammability Classification			IEC 60695-11-10, -20
0.0157 in (0.400 mm)	V-0	V-0	
0.0295 in (0.750 mm)	V-0	V-0	
0.0591 in (1.50 mm)	V-0	V-0	
0.118 in (3.00 mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.0295 in (0.750 mm)	1760 °F	960 °C	
0.0591 in (1.50 mm)	1760 °F	960 °C	
0.118 in (3.00 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.0295 in (0.750 mm)	1290 °F	700 °C	
0.0591 in (1.50 mm)	1290 °F	700 °C	
0.118 in (3.00 mm)	1290 °F	700 °C	
UL 746	Nominal Value (English)	Nominal Value (SI)	Test Method
RTI Str			UL 746
0.0295 in (0.750 mm)	284 °F	140 °C	
0.0591 in (1.50 mm)	284 °F	140 °C	
0.118 in (3.00 mm)	284 °F	140 °C	
RTI Imp			UL 746
0.0295 in (0.750 mm)	248 °F	120 °C	
0.0591 in (1.50 mm)	248 °F	120 °C	
0.118 in (3.00 mm)	248 °F	120 °C	
RTI Elec			UL 746
0.0295 in (0.750 mm)	284 °F	140 °C	
0.0591 in (1.50 mm)	284 °F	140 °C	
0.118 in (3.00 mm)	284 °F	140 °C	
Additional Information	Nominal Value (English)	Nominal Value (SI)	
Additional Properties			
Drying Recommended	Yes	Yes	
Melt Temperature, Optimum	250 °C	250 °C	
Processing Moisture Content	< 0.0400 %	< 0.0400 %	

Processing Information		
Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	230 to 266 °F	110 to 130 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Processing (Melt) Temp	464 to 500 °F	240 to 260 °C
Mold Temperature	86.0 to 266 °F	30.0 to 130 °C
Mold Temperature, Optimum	80.0 °C	80.0 °C

Notes

¹ Typical properties: these are not to be construed as specifications.