

DuPont™ Zytel® FR50 BK153J

NYLON RESIN

Product Information

Zytel® FR50 BK153J is a 25% Glass Reinforced, Flame Retardant, Polyamide 66

General information	Value	Unit	Test Standard
Resin Identification	PA66-GF25FR(17)	-	ISO 1043
Part Marking Code	>PA66-GF25FR(17)	-	ISO 11469
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Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	10400 / -	MPa	ISO 527-1/-2
Stress at break	145 / -	MPa	ISO 527-1/-2
Strain at break	2.6 / -	%	ISO 527-1/-2
Flexural Modulus	9160 / -	MPa	ISO 178
Flexural Strength	240 / -	MPa	ISO 178
Charpy notched impact strength, 23°C	9.5 / -	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	10.7 / -	kJ/m²	ISO 180/1A
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	241 / *	°C	ISO 75-1/-2
RTI, electrical			UL 746B
0.75 mm	130 / *	°C	
1.5mm	130 / *	°C	
3mm	130	°C	
RTI, impact			UL 746B
0.75 mm	105	°C	
1.5mm	115 / *	°C	
3mm	115	°C	
RTI, strength			UL 746B
0.75 mm	105	°C	
1.5mm	115 / *	°C	
3mm	120	°C	
Flammability	dry / cond	Unit	Test Standard
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Burning Behav. 5V at thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	IEC 60695-11-20
Flammability, 3.0mm	V-0 / *	-	IEC 60695-11-10
Fl. 3.0mm, UL Yellow Card	V-0 / *	-	-
Hot Wire Ignition			UL 746A
0.75mm	300 / *	s	
1.5mm	300 / *	s	
3mm	300 / *	s	
Electrical properties	dry / cond	Unit	Test Standard
Comparative tracking index	285 / -	-	IEC 60112
High Amperage Arc Ignition Resistance			UL 746A
0.75 mm	166 / *	arcs	
1.5 mm	171 / *	arcs	
3 mm	187 / *	arcs	
Injection	dry / cond	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	80	°C	-
Drying Time, Dehumidified Dryer	2 - 4	h	-
Processing Moisture Content	≤0.2	%	-
Melt Temperature Optimum	290	°C	-
Min. melt temperature	280	°C	-

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Max. melt temperature	300	°C	-
Max. screw tangential speed	0.2 / *	m/s	-
Mold Temperature Optimum	100	°C	-
Min. mould temperature	50	°C	-
Max. mould temperature	90	°C	-
Hold pressure range	50 - 100	MPa	-
Hold pressure time	3	s/mm	-
Ejection temperature	210	°C	-

Characteristics

Processing	• Injection Moulding
Delivery form	• Pellets
Regional Availability	• Asia Pacific

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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