



Zytel® FR50 BK153J

NYLON RESIN

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

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Resin Identification	PA66-GF25FR(17)	ISO 1043
Part Marking Code	>PA66-GF25FR(17)<	ISO 11469
ISO designation	ISO 16396-PA66,GF25 FR(17),M1CF1GR,S14-100	

Rheological properties	dry/cond.		
Viscosity number	150 ^[1] /* ^[DS]	cm ³ /g	ISO 307, 1628
Moulding shrinkage, parallel	0.3/-	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.7/-	%	ISO 294-4, 2577
[DS]: Derived from similar grade			
[1]: Sulfuric acid 96%			

Typical mechanica	al properties	dry/cond.
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Tensile modulus	10400/-	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	160/-	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.6/-	%	ISO 527-1/-2
Flexural modulus	9160/-	MPa	ISO 178
Flexural strength	240/-	MPa	ISO 178
Charpy impact strength, 23°C	55/-	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	9.5/-	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	11/-	kJ/m²	ISO 180/1A
Poisson's ratio	0.34/-		

Thermal properties dry/cond.

260 ^[2] /*	°C	ISO 11357-1/-3
80/20	°C	ISO 11357-1/-3
240/*	°C	ISO 75-1/-2
130	°C	UL 746B
130	°C	UL 746B
130	°C	UL 746B
105	°C	UL 746B
115	°C	UL 746B
115	°C	UL 746B
105	°C	UL 746B
115/*	°C	UL 746B
120	°C	UL 746B
	80/20 240/* 130 130 130 105 115 115 105 115/*	80/20 °C 240/* °C 130 °C 130 °C 130 °C 130 °C 105 °C 115 °C 115 °C 105 °C 115/* °C

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Flammability	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0/*	class	IEC 60695-11-10
Thickness tested	1.5/*	mm	IEC 60695-11-10
UL recognition	yes/*		UL 94
Burning Behav. at thickness h	V-0/*	class	IEC 60695-11-10
Thickness tested	0.35/*	mm	IEC 60695-11-10
UL recognition	yes/*		UL 94
Burning Behav. 5V at thickness h	5VA/*	class	IEC 60695-11-20
Thickness tested	1.5/*	mm	IEC 60695-11-20
UL recognition	yes/*		UL 94
FMVSS Class	DNI		ISO 3795 (FMVSS 302)
Hot Wire Ignition, 0.75mm	300/*	S	UL 746A
Hot Wire Ignition, 1.5mm	300/*	S	UL 746A
Hot Wire Ignition, 3mm	300/*	S	UL 746A
Electrical properties	dry/cond.		
Volume resistivity	>1E13/2.7E10	Ohm.m	IEC 62631-3-1
Electric strength	24/22 ^[DS]	kV/mm	IEC 60243-1
Comparative tracking index	275/-		IEC 60112
Comparative tracking index, 23°C	2/-	PLC	UL 746A
High Amperage Arc Ignition Resistance, 0.75 mm	166/*	arcs	UL 746A
High Amperage Arc Ignition Resistance, 1.5 mm	171/*	arcs	UL 746A
High Amperage Arc Ignition Category, 1.5 mm	187/*	class	UL 746A
[DS]: Derived from similar grade			
Physical/Other properties	dry/cond.		
Humidity absorption, 2mm	1.3/*	%	Sim. to ISO 62
Water absorption, 2mm	3.4/*	%	Sim. to ISO 62
Water absorption, Immersion 24h	0.6 ^[3] /*	%	Sim. to ISO 62
Density	1570/-	kg/m ³	ISO 1183
[3]: thickness 2mm	10707	Ng/III	100 1100
Injection			
Drying Recommended	yes		
Drying Temperature		°C	
Drying Time, Dehumidified Dryer	2 - 4		
Processing Moisture Content	≤0.2		
Melt Temperature Optimum	290		
Min. melt temperature	280		
Max. melt temperature	300		
Screw tangential speed	≤0.2		
Mold Temperature Optimum	100		
Min. mould temperature		°C	
Max. mould temperature	120	_	
Hold pressure range	50 - 100		
Hold pressure time		s/mm	
Ejection temperature	210		

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Characteristics

Processing Injection Moulding

Delivery form Pellets

Additives Flame retardant Special characteristics Flame retardant

Automotive

OEM STANDARD ADDITIONAL INFORMATION

CATL MCR0000561

General Motors GMW17481P-PA66-GF25 Black

Hyundai MS941-03 Type A-5 FRV0

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