DuPont™ Zytel® 70G35EF BK538

NYLON RESIN

Product Information			
Zytel® 70G35EF BK538 is a 35% Glass Reinforced, Heat Stabilized, Polyamide 66			
General information	Value	Unit	Test Standard
Resin Identification	PA66+PA6-GF35	-	ISO 1043
Part Marking Code	>PA66+PA6-GF35<	-	ISO 11469
Rheological properties	dry / cond	Unit	Test Standard
Moulding shrinkage, parallel	0.4 / -	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.0 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	11000 / 8500	MPa	ISO 527-1/-2
Stress at break	200 / 140	MPa	ISO 527-1/-2
Strain at break	2.8 / 4.6	%	ISO 527-1/-2
Flexural Modulus	9500 / -	MPa	ISO 178
Charpy notched impact strength			ISO 179/1eA
23°C	10 / -	kJ/m²	
-30°C	9 / -	kJ/m²	
-40°C	9 / -	kJ/m²	
Izod notched impact strength, 23°C	10 / -	kJ/m²	ISO 180/1A
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	80 / 20	°C	ISO 11357-1/-2
Temp. of deflection under load			ISO 75-1/-2
1.8 MPa	250 / *	°C	
8 MPa	110 / *	°C	
Vicat softening temperature, 50°C/h, 50N	255 / *	°C	ISO 306
Coeff. of linear therm. expansion, parallel	17 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	85 / *	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.24	W/(m K)	-
Spec. heat capacity of melt	2130	J/(kg K)	-
Flammability	dry / cond	Unit	Test Standard
Burning Behav. at 1.5mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.7 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94
Oxygen index	24 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index, 2mm	650 / -	°C	IEC 60695-2-1/2
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Electrical properties	dry / cond	Unit	Test Standard
Relative permittivity, 1MHz	4.1 / 4.7	-	IEC 60250
Dissipation factor, 1MHz	140 / 620	E-4	IEC 60250
Volume resistivity	1E12 / 1E9	Ohm*m	IEC 60093
Electric strength	36 / 31	kV/mm	IEC 60243-1
Comparative tracking index	575 / -	-	IEC 60112
Other properties	dry / cond	Unit	Test Standard
Humidity absorption, 2mm	1.7 / *	%	Sim. to ISO 62
Water absorption, 2mm	5.5 / *	%	Sim. to ISO 62
Density	1400 / -	kg/m³	ISO 1183
Density of melt	1240	kg/m³	-

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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	295	°C	-
Min. melt temperature	285	°C	-
Max. melt temperature	305	°C	-
Max. screw tangential speed	0.2 / *	m/s	-
Mold Temperature Optimum	100	°C	-
Min. mould temperature	70	°C	-
Max. mould temperature	120	°C	-
Hold pressure range	50 - 100	MPa	-
Hold pressure time	3	s/mm	-
Ejection temperature	210	°C	-

Characteristics			
Processing	• Injection Moulding		
Delivery form	• Pellets		
Additives	• Release agent		
Regional Availability	• North America • Europe	• Asia Pacific • South and Central America	• Near East/Africa • Global