

# HiFill® PA6/6 GB36 IM1

Polyamide 66

Techmer Engineered Solutions

## Message:

HiFill® PA6/6 GB36 IM1 is a polyamide 66 (nylon 66) product containing 36% glass beads. It can be processed by injection molding and is available in North America.

Features include:

flame retardant/rated flame

Impact modification

Impact resistance

General Information			
Filler / Reinforcement	Micro glass bead, 36% packing by weight		
Additive	Impact modifier		
Features	Impact resistance, high		
Appearance	Available colors		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.40	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.8	%	ASTM D955
Water Absorption (24 hr)	0.85	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	103	MPa	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	6890	MPa	ASTM D790
Flexural Strength	145	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	69	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	640	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	210	°C	ASTM D648
1.8 MPa, not annealed	138	°C	ASTM D648
CLTE - Flow	2.0E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Strength <sup>1</sup>	17	kV/mm	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	HB		UL 94

Injection	Nominal Value	Unit
Drying Temperature	82.2	°C
Drying Time	2.0 - 4.0	hr
Suggested Max Moisture	0.12	%
Rear Temperature	282 - 293	°C
Middle Temperature	288 - 299	°C
Front Temperature	277 - 288	°C
Nozzle Temperature	282 - 293	°C
Processing (Melt) Temp	282 - 304	°C
Mold Temperature	54.4 - 93.3	°C
Injection Rate	Moderate-Fast	
Back Pressure	0.345 - 0.689	MPa
Injection instructions		
Screw Speed: MediumRecommendations for Molding and Tool Conditions: Well ventedMoisture Content, as received: Product is packaged at 0.2% or less.Recomended Max Moisture: 0.12% down to 0.08%		
NOTE		

1. Method A (short time)

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