

# HiFill® PA6 GF33 IM3 BK

Polyamide 6  
Techmer Engineered Solutions

Message:

HiFill® PA6 GF33 IM3 BK is a polyamide 6 (nylon 6) product, which contains a 33% glass fiber reinforced material. It can be processed by injection molding and is available in North America.

Features include:

- flame retardant/rated flame
- Impact modification
- Impact resistance
- heat stabilizer
- Lubrication

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 33% filler by weight		
Additive	Impact modifier		
	heat stabilizer		
	Lubricant		
Features	Impact resistance, high		
	Thermal Stability		
	Lubrication		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.32	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (24 hr)	0.97	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	132	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	7450	MPa	ASTM D790
Flexural Strength	186	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C, 3.18 mm	100	J/m	ASTM D256
23°C, 3.18 mm	250	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	1400	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	210	°C	ASTM D648
CLTE - Flow	3.6E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	2.0E+13	ohms·cm	ASTM D257
Dielectric Strength <sup>1</sup>	15	kV/mm	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	266 - 277	°C	
Middle Temperature	277 - 288	°C	
Front Temperature	271 - 282	°C	
Nozzle Temperature	271 - 282	°C	
Processing (Melt) Temp	277 - 288	°C	
Mold Temperature	79.4 - 104	°C	
Injection Rate	Slow-Moderate		
Back Pressure	0.00 - 0.345	MPa	
Injection instructions			
Screw Speed: MediumRecommendations for Molding and Tool Conditions: Well vented moldMoisture Content, as received: Product is packaged at 0.2% or less.			
NOTE			
1.	Method A (short time)		

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#### Recommended distributors for this material

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