# Polifil® Nylon 78MRGF

### Polyamide 66

The Plastics Group

#### Message:

Polifil® GFN/MRN 6/6 reinforced series of compounds offer superior strength, rigidity, and creep resistance. Glass fibers provide excellent thermal and dimensional stability while maintaining good heat and chemical resistance. Polifil® GFN/MRN are excellent candidates for bike components and fuel caps, as well as other automotive components. Standard processing techniques are applicable. Use this information as a guide to aid you in selecting the proper resin for your application. TPG will custom compound and fine-tune our formulations for your application.

General Information					
Filler / Reinforcement	Glass\Mineral,40% Filler by Weight				
Features	Good Chemical Resistance				
	Good Creep Resistance				
	Good Dimensional Stability				
	Good Thermal Stability				
	High Heat Resistance				
	High Rigidity				
	High Strength				
Uses	Automotive Applications				
	Caps				
Forms	Pellets				
Processing Method	Injection Molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.45	g/cm³	ASTM D792		
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955		
Water Absorption (24 hr)	0.70	%	ASTM D570		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (R-Scale)	120		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus (23°C)	6890	MPa	ASTM D638		
Tensile Strength (23°C)	124	MPa	ASTM D638		
Tensile Elongation			ASTM D638		
Yield, 23°C	2.0	%			
Break, 23°C	5.0	%			
Flexural Modulus - Tangent (23°C)	6550	MPa	ASTM D790		
Flexural Strength (23°C)	186	MPa	ASTM D790		
Impact	Nominal Value	Unit	Test Method		
Notched Izod Impact (23°C)	64	J/m	ASTM D256		
Gardner Impact (23°C, 12.7 mm)	0.565	J	ASTM D3029		

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	257	°C	
1.8 MPa, Unannealed	235	°C	
Injection	Nominal Value	Unit	
Drying Temperature	104	°C	
Drying Time	2.0	hr	
Rear Temperature	288	°C	
Middle Temperature	274	°C	
Front Temperature	282	°C	
Nozzle Temperature	288	°C	
Processing (Melt) Temp	282 to 304	°C	
Mold Temperature	37.8 to 93.3	°C	
Injection Rate	Fast		
Back Pressure	0.172 to 0.517	MPa	
Screw Speed	30 to 60	rpm	

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#### Recommended distributors for this material

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