Polifil® PP GFPPCC-10

Polypropylene Homopolymer

The Plastics Group

Message:

Polifil® GFPPCC series compounds are homopolymer polypropylenes reinforced with chemically coupled glass fibers. These compounds offer superior strength and stiffness, improved elevated temperature performance, better creep resistance, higher impact strength, and higher resistance to high temperature water than conventional glass fiber reinforced polypropylenes. These compounds are used in chemical resistance applications, appliances, electrical components, automotive, irrigation and utility products. 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			
UL YellowCard	E84888-251659		
Filler / Reinforcement	Glass Fiber,10% Filler by Weight		
Features	Chemically Coupled Good Chemical Resistance Good Creep Resistance Good Stiffness High Impact Resistance High Strength Homopolymer		
Uses	Appliances Automotive Applications Electrical Parts Irrigation Applications		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	0.978	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	4.0 to 10	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.18 mm)	0.60	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	85		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	2280	MPa	ASTM D638
Tensile Strength (23°C)	53.8	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield, 23°C	3.0	%	
Break, 23°C	6.0	%	
Flexural Modulus - Tangent (23°C)	2690	MPa	ASTM D790

Flexural Strength (23°C)	65.5	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)	0.904	J	ASTM D3029
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	141	°C	
1.8 MPa, Unannealed	124	°C	
Injection	**Nominal Value**	**Unit**	
Drying Temperature	82.2 to 104	°C	
Drying Time	1.0 to 2.0	hr	
Rear Temperature	210 to 221	°C	
Middle Temperature	216 to 227	°C	
Front Temperature	227 to 238	°C	
Nozzle Temperature	227 to 249	°C	
Processing (Melt) Temp	232 to 260	°C	
Mold Temperature	48.9 to 65.6	°C	
Injection Rate	Fast		
Back Pressure	0.172 to 0.517	MPa	
Screw Speed	30 to 60	rpm	

Recommended distributors for this material

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