

INSPIRE™ DLGF 9621.00

Experimental Compounded Polypropylene

Trinseo

Message:

DLGF 9621.00 is a polypropylene homopolymer reinforced with 60% by weight of long glass fibres. (PP-LGF60, Long Glassfiber Granulate).

DLGF 9621.00 is produced by pultrusion /melt-impregnation process, thereby ensuring thorough impregnation of all the glassfibers and also providing improved 'pellet robustness' for air conveying. It is available in two equivalent versions: the 'MR' version produced in USA and the 'TR' version produced in Europe. Both are available in 'standard black'.

This PP-LGF60 is a concentrate which has to be diluted with either 'neat'-polypropylene and/or mineral filled PPbased compounds. The 'dilution' is typically done as a dryblend of granulates by means of gravimetric dosing devices at the injection-molding machine. A weight ratio of 1 : 1 of DLGF 9621.00 and i.e. LGF 8100 PP-copolymer will result in a composite-system having 30% by weight of glassfibers.

DLGF 9621.00 has been especially formulated to meet the long term heat ageing resistance (LTHA) required for use in some automotive 'interior' applications i.e. instrument panelcarrier or integrated door-modules. LTHA> 1000 h @140°C and/or LTHA > 400 h @150°C will be achieved after dilution to 30% GF-content with 'neat'-PP (LGF 8100).

The 'long' glass fibres (11 mm length) provide high stiffness, strength and impact-resistance of the injection molded parts. The properties shown below have been measured on standardized 'dogbone'-shape specimens (ISO 3167).

Note : The mechanical properties which will be present in 'real' injection-molded parts may be different - depending on the fiber-orientation and the fiber-length distribution profile - which themselves are resulting from hardware configuration and processing parameters (such as i.e. the type of screw and mixing elements, diameter and radii of nozzle and hot-runners, number and size of gates, injection speed during mold filling and backpressure during dosing cycle).

General Information			
Filler / Reinforcement	Long glass fiber, 60% filler by weight		
Features	Rigidity, high		
	High strength		
	Impact resistance, high		
	Good heat aging resistance		
Uses	Application in Automobile Field		
	Car interior parts		
	Car dashboard		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.12	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6500	MPa	ISO 527-2/5
Tensile Stress (Break)	105	MPa	ISO 527-2/50
Tensile Strain (Break)	2.3	%	ISO 527-2/50
Flexural Modulus ¹	6500	MPa	ISO 178
Flexural Stress ²	155	MPa	ISO 178
Fracture bending strain-External "fiber" strain	3.0	%	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			
23°C	53	kJ/m ²	ISO 179/1eU
23°C	45	kJ/m ²	ISO 179/1fU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	156	°C	ISO 75-2/A
Additional Information			

这些是在 ISO 3167 类型 1a 中定义的注射模塑试件(“dogbones”)上测量的典型属性(L= 175 mm,中心部分:80x10x4 mm).

稀释材料:LGF 8100

稀释比:1 : 1 混合

稀释后的玻璃纤维含量:30%

NOTE	
1.	3-point bend
2.	3-point bend

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