

TDS Polyfort™ FPP 40 GFC LE K2097

Polypropylene Homopolymer

Product

40 % glass fibre reinforced PP homopolymer, long term heat stabilized

General

Material Status	Pending Approval		
Availability	Africa & Middle East Latin America	Asia Pacific North America	Europe
Filler / Reinforcement	Glass Fiber, 40% Filler by Weight		
Features	Chemically Coupled	Low Emissions	Homopolymer
Processing Method	Injection Molding		
Resin ID (ISO 1043)	PP-H 40 GF		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.21 g/cm ³	1.21 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	0.305 in ³ /10min	5.0 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.39E+6 psi	9600 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	14500 psi	100 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.8 %	2.8 %	ISO 527-2/1A/5
Flexural Modulus	1.20E+6 psi	8300 MPa	ISO 178
Flexural Stress ¹			ISO 178
3.1% Strain	21000 psi	145 MPa	
3.3% Strain	18900 psi	130 MPa	

Notes

¹ 0.079 in/min (2.0 mm/min)

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Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.8 ft·lb/in ²	8.0 kJ/m ²	
73°F (23°C)	4.8 ft·lb/in ²	10 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	23 ft·lb/in ²	49 kJ/m ²	
73°F (23°C)	24 ft·lb/in ²	50 kJ/m ²	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	22200 psi	153 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	318°F	159°C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	293°F	145°C	ISO 75-2/Af
Vicat Softening Temperature			
--	329°F	165°C	ISO 306/A50
--	275°F	135°C	ISO 306/B50

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·cm	> 1.0E+13 ohms·cm	IEC 60093

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate	<2.4 in/min	<60 mm/min	FMVSS

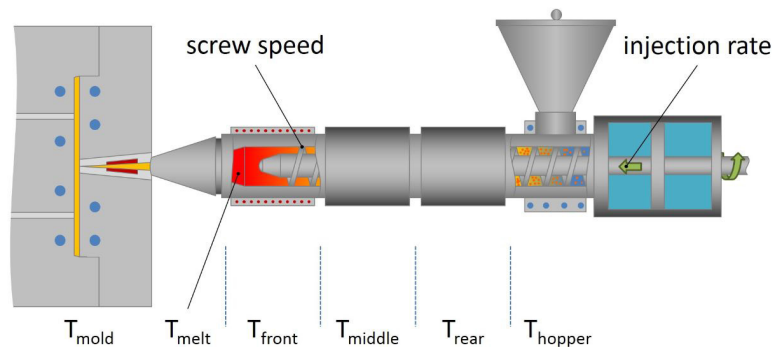
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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

Additional Information

- 1) Not for use in food contact applications
- 2) Not for use in medical or pharmaceutical applications



Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176°F	80°C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Regrind	20%	20%
Processing (Melt) Temp	446 to 518°F	230 to 270°C
Mold Temperature	104 to 158°F	40 to 70°C

Injection Notes

*Drying normally not necessary
 Low Emission grades are sensitive for shear-stress. Processing parameters determine the emission- and odor properties of the finished parts. Therefore moderate temperatures and moderate injection- and dozing rates are recommended.