

Technical Data Sheet

POLYFLAM® RFPP 2318 GFC CS1

Polypropylene Homopolymer
Engineering Plastics



Product Description

25% glass fiber reinforced flame retardant PP homo polymer compound; without PBDE

General

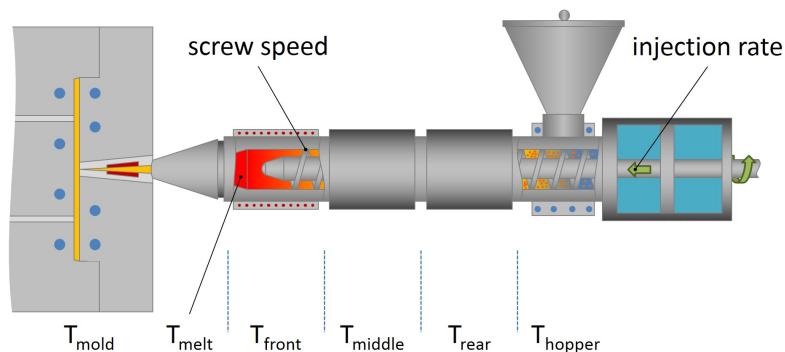
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Flame Retardant	• Homopolymer	
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP GF25 FR(17)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.45 g/cm³	1.45 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	6.00 cm³/10min	6.00 cm³/10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	725000 psi	5000 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	7980 psi	55.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.0 %	2.0 %	ISO 527-2/1A/5
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	2.4 ft·lb/in²	5.0 kJ/m²	
73°F (23°C)	2.9 ft·lb/in²	6.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	8.1 ft·lb/in²	17 kJ/m²	
73°F (23°C)	9.0 ft·lb/in²	19 kJ/m²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	306 °F	152 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	261 °F	127 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	320 °F	160 °C	ISO 306/A50
--	230 °F	110 °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·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600 V	600 V	UL 746
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			FMVSS 302
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	
Flammability Classification			IEC 60695-11-10, -20
0.07 in (1.7 mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.08 in (2.0 mm)	1760 °F	960 °C	
Oxygen Index	29 %	29 %	ISO 4589-2

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	356 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	410 °F	210 °C
Nozzle Temperature	428 °F	220 °C
Processing (Melt) Temp	392 to 428 °F	200 to 220 °C
Mold Temperature	104 to 176 °F	40 to 80 °C
Injection Pressure	11600 to 17400 psi	80.0 to 120 MPa
Injection Rate	Slow-Moderate	Slow-Moderate
Holding Pressure	5800 to 13100 psi	40.0 to 90.0 MPa
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Cushion	0.197 in	5.00 mm
Screw Speed	709 in/min	18 m/min

Notes

These are typical property values not to be construed as specification limits.