Technical Data Sheet

POLYFLAM® RPP 2120

Polypropylene Homopolymer
Engineering Plastics

Product Description			
20% mineral filled flame retardant PP-homopolymer, halogen free			
General			
Filler / Reinforcement	• Mineral, 20% Filler by Weight		
Features	• Flame Retardant	• Halogen Free	• Homopolymer
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP MD20 FR(40)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.10 g/cm³	1.10 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	15 cm³/10min	15 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	218000 psi	1500 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	4640 psi	32.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	10 %	10 %	ISO 527-2/1A/50
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.95 ft·lb/in²	2.0 kJ/m²	
73°F (23°C)	1.9 ft·lb/in²	4.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	7.6 ft·lb/in²	16 kJ/m²	
73°F (23°C)	38 ft·lb/in²	80 kJ/m²	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	201 °F	94.0 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	124 °F	51.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	306 °F	152 °C	ISO 306/A50
--	201 °F	94.0 °C	ISO 306/B50
Ball Pressure Test (284°F (140°C))	Pass	Pass	IEC 60695-10-2
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Comparative Tracking Index	600 V	600 V	IEC 60112
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate	< 3.9 in/min	< 100 mm/min	ISO 3795
Flammability Classification			IEC 60695-11-10, -20
0.03 in (0.8 mm)	V-2	V-2	
0.06 in (1.6 mm)	V-2	V-2	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in (0.75 mm)	1760 °F	960 °C	
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 in (0.75 mm)	1290 °F	700 °C	
0.06 in (1.5 mm)	1290 °F	700 °C	
0.12 in (3.0 mm)	1290 °F	700 °C	
Oxygen Index	26 %	26 %	ISO 4589-2

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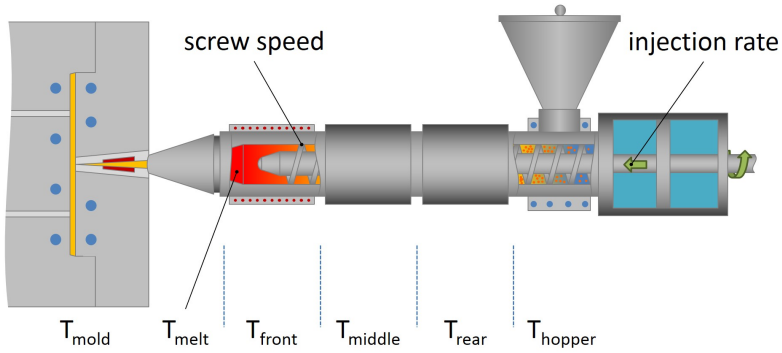

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	356 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	410 °F	210 °C
Nozzle Temperature	428 °F	220 °C
Processing (Melt) Temp	356 to 428 °F	180 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.