Technical Data Sheet

Polyflam RPC 31XP GF10 FR

Polycarbonate
LyondellBasell Industries
Engineering Plastics

Product Description
Flame retardant glass fiber reinforced PC; halogen free according to DIN VDE 0472 part 815

General		
Features	• Flame Retardant	• Halogen Free
Processing Method	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.27 g/cm³	1.27 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°c/5.0 Kg)	9.0 cm³/10min	9.0 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	522000 psi	3600 MPa	ISO 527-1/1A/1
Tensile Stress			
Yield	10200 psi	70.0 MPa	ISO 527-2/1A/50
Break	9140 psi	63.0 MPa	ISO 527-2
Tensile Strain (Yield)	3.5 %	3.5 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	6.3 %	6.3 %	ISO 527-2
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°f (-30°c)	4.3 ft·lb/in²	9.0 kJ/m²	
73°f (23°c)	4.8 ft·lb/in²	10 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°f (-30°c)	29 ft·lb/in²	60 kJ/m²	
73°f (23°c)	24 ft·lb/in²	50 kJ/m²	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	282 °F	139 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	270 °F	132 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	223 °F	106 °C	ISO 306/B50
--	302 °F	150 °C	ISO 306/A50
Ball Pressure Test (275°f (135°c))	Pass	Pass	IEC 60695-10-2
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate			
0.0787 In (2.00 Mm), Self-extinguishing	0.0 in/min	0.0 mm/min	FMVSS 302
0.0787 In (2.00 Mm), Self-extinguishing	0.0 in/min	0.0 mm/min	ISO 3795
Flame Rating			UL 94
0.06 In (1.5 Mm)	V-1	V-1	
0.12 In (3.0 Mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.12 In (3.0 Mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 In (1.5 Mm)	1560 °F	850 °C	
0.12 In (3.0 Mm)	1560 °F	850 °C	

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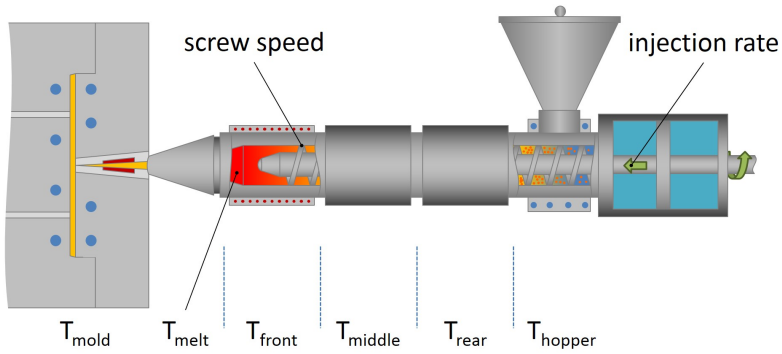

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	212 to 248 °F	100 to 120 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Processing (Melt) Temp	500 to 518 °F	260 to 270 °C
Mold Temperature	122 to 176 °F	50 to 80 °C
Injection Rate	Moderate-Fast	Moderate-Fast
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Screw Speed	< 591 in/min	< 15 m/min

Notes

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