Technical Data Sheet

Polyflam RIPP 490 E

Polypropylene Copolymer
LyondellBasell Industries
Engineering Plastics

Product Description
Flame retardant PP-Copolymer; halogen free, for extrusion

General			
Features	• Copolymer	• Flame Retardant	• Halogen Free
Processing Method	• Extrusion	• Injection Molding	
Resin ID (ISO 1043)	• PP FR(51)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.06 g/cm³	1.06 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°c/2.16 Kg)	2.0 cm³/10min	2.0 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	203000 psi	1400 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	2470 psi	17.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	3.5 %	3.5 %	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)	1.4 ft·lb/in²	3.0 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)	7.1 ft·lb/in²	15 kJ/m²	
73°f (23°c)	38 ft·lb/in²	80 kJ/m²	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	203 °F	95.0 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	127 °F	53.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	142 °F	61.0 °C	ISO 306/B50
--	291 °F	144 °C	ISO 306/A120
Ball Pressure Test (248°f (120°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**
Flammability Classification			IEC 60695-11-10, -20
0.06 In (1.5 Mm)	V-0	V-0	
0.12 In (3.0 Mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
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
0.06 In (1.5 Mm)	1290 °F	700 °C	
0.12 In (3.0 Mm)	1290 °F	700 °C	
Oxygen Index	36 %	36 %	ISO 4589-2

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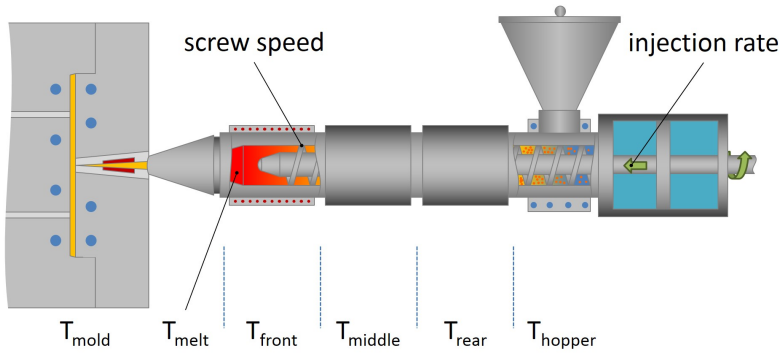

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	356 °F	180 °C
Middle Temperature	392 °F	200 °C
Front Temperature	410 °F	210 °C
Nozzle Temperature	428 °F	220 °C
Processing (Melt) Temp	356 to 428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

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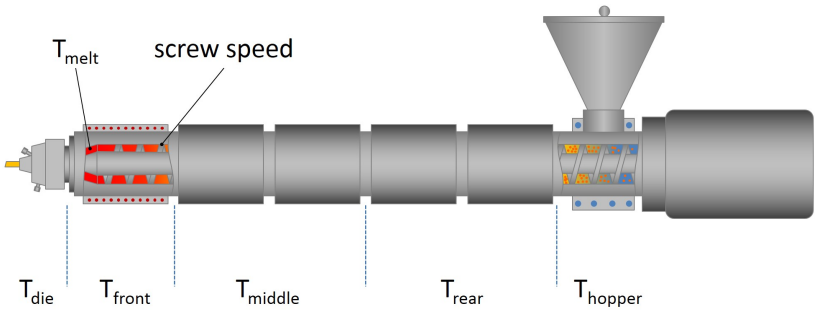

Extrusion	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	< 0.10 %	< 0.10 %
Melt Temperature	338 to 410 °F	170 to 210 °C

Notes

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