

Technical Data Sheet

Polyflam RPP 500 D

Polypropylene Homopolymer

LyondellBasell Industries

Engineering Plastics

Product Description

Flame retardant PP-homopolymer - standard grade without PBDE

General

Additive	• Flame Retardant
Features	• Flame Retardant • Homopolymer
Processing Method	• Injection Molding
Part Marking Code (ISO 11469)	• >PP FR(<

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.940 g/cm ³	0.940 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg)	10 cm ³ /10min	10 cm ³ /10min	ISO 1133
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% Rh	0.13 %	0.13 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	203000 psi	1400 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	4060 psi	28.0 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)	1.1 ft·lb/in ²	2.3 kJ/m ²	
73°F (23°C)	2.4 ft·lb/in ²	5.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	8.8 ft·lb/in ²	19 kJ/m ²	
73°F (23°C)	No Break	No Break	
Notched Izod Impact (Area) (73°F (23°C))	1.90 ft·lb/in ²	4.00 kJ/m ²	ASTM D256
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	1.2 ft·lb/in ²	2.5 kJ/m ²	
73°F (23°C)	1.9 ft·lb/in ²	4.0 kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
-40°F (-40°C)	6.9 ft·lb/in ²	15 kJ/m ²	
73°F (23°C)	No Break	No Break	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	9430 psi	65.0 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	248 °F	120 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	185 °F	85.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	201 °F	94.0 °C	ISO 306/B50
--	300 °F	149 °C	ISO 306/A120
Ball Pressure Test (266°F (130°C))	Pass	Pass	IEC 60695-10-2

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	600 V	600 V	IEC 60112

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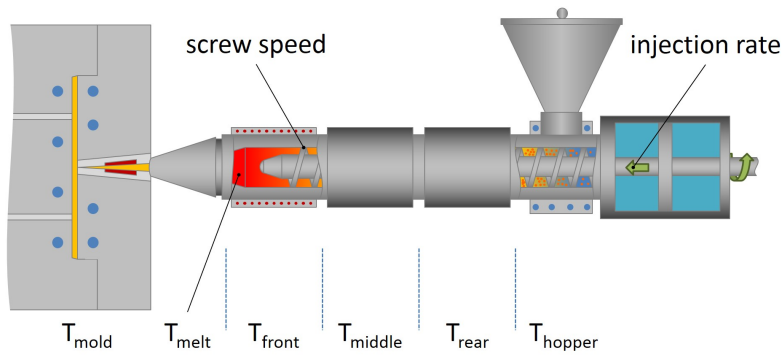
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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.030 In (0.75 Mm)	V-2	V-2	
0.06 In (1.5 Mm)	V-2	V-2	
Glow Wire Flammability Index			IEC 60695-2-12
0.08 In (2.0 Mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 In (0.75 Mm)	1380 °F	750 °C	
0.06 In (1.5 Mm)	1340 °F	725 °C	
0.12 In (3.0 Mm)	1340 °F	725 °C	
Oxygen Index	27 %	27 %	ISO 4589-2

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Injection Notes

Mould surface contacting melt should
be of non-corrosive steel (content of chrome > 12%)

Notes

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