

Technical Data Sheet

Polyflam RMMB 40400

Polycarbonate + ABS
LyondellBasell Industries
Engineering Plastics

Product Description

Flame retardant ABS/PC blend for higher temperature resistance and impact strength; halogen free according to DIN VDE 0472 part 815

General

Features	- Flame Retardant - Good Impact Resistance	- Good Processability - Halogen Free	Low Temperature Impact Resistance
UL File Number	E86615		
Processing Method	Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm ³	1.18 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°C/5.0 Kg)	28 cm ³ /10min	28 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	348000 psi	2400 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	9140 psi	63.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	5.0 %	5.0 %	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)	10 ft·lb/in ²	21 kJ/m ²	
73°F (23°C)	30 ft·lb/in ²	63 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	217 °F	103 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	203 °F	95.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	230 °F	110 °C	ISO 306/B50
--	239 °F	115 °C	ISO 306/A50
Ball Pressure Test (221°F (105°C))	Pass	Pass	IEC 60695-10-2
RTI Elec			UL 746B
0.06 In (1.5 Mm)	140 °F	60.0 °C	
0.12 In (3.0 Mm)	140 °F	60.0 °C	
RTI Imp			UL 746B
0.06 In (1.5 Mm)	140 °F	60.0 °C	
0.12 In (3.0 Mm)	140 °F	60.0 °C	
RTI Str			UL 746B
0.06 In (1.5 Mm)	140 °F	60.0 °C	
0.12 In (3.0 Mm)	140 °F	60.0 °C	

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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	225 V	225 V	IEC 60112
High Amp Arc Ignition (HAI)			UL 746A
0.06 In (1.5 Mm)	PLC 3	PLC 3	
0.12 In (3.0 Mm)	PLC 2	PLC 2	
Hot-wire Ignition (HWI)			UL 746A
0.06 In (1.5 Mm)	PLC 3	PLC 3	
0.12 In (3.0 Mm)	PLC 2	PLC 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 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	
0.14 In (3.5 Mm)	V-0	V-0	
	5VA	5VA	
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	
0.14 In (3.5 Mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 In (1.5 Mm)	1470 °F	800 °C	
0.12 In (3.0 Mm)	1470 °F	800 °C	
0.14 In (3.5 Mm)	1470 °F	800 °C	
Oxygen Index	33 %	33 %	ISO 4589-2

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 212 °F	80 to 100 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Processing (Melt) Temp	500 to 518 °F	260 to 270 °C
Mold Temperature	140 to 176 °F	60 to 80 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Screw Speed	< 709 in/min	< 18 m/min

Notes

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