

Technical Data Sheet

Polyflam RPP 490 H2FR NAT



Polypropylene, Homopolymer

Product Description

Flame-retardant PP-homopolymer, halogenfree

Processing Method Injection Molding

Resin ID PP (FR51)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	30	cm ³ /10 min	ISO 1133
Density, (Method A)	1.16	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	22.0	MPa	ISO 527-2
Flexural Modulus, (2.0 mm/min)	3500	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 50 mm/min)	1.3	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	3300	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min, 1.7%)	40.0	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	1.5	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	1.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	9.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	6.0	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (145 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	110	°C	ISO 306
(A (10N), 50 °C/h)	155	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	120	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	85.0	°C	ISO 75-2/A
Electrical			
Comparative Tracking Index (CTI)	600	V	IEC 60112
Flammable			

Glow Wire Flammability Index			
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	900	°C	IEC 60695-2-13
(3.0 mm)	900	°C	IEC 60695-2-13
Oxygen Index	50	%	ISO 4589-2
UL Information			
Flame Rating			
(1.6 mm)	V-2		UL 94
(3.2 mm)	V-0		UL 94
Flammability Classification			
(1.6 mm)	V-2		IEC 60695-11-10, -20
(3.2 mm)	V-0		IEC 60695-11-10, -20