

Technical Data Sheet

Polyflam RPP 4220 MD 16V0 BLK



Polypropylene, Homopolymer

Product Description

20% glass fibre reinforced flame retardant polypropylene homopolymer compound free of halogens

Processing Method	Injection Molding
Attribute	Halogen Free; Homopolymer
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 20%
Resin ID	PP GF20 FR(51)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	5.0	cm ³ /10 min	ISO 1133
Density, (Method A)	1.21	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	3.0	%	ISO 527-2
Tensile Stress at Break, (Type 1A, 5 mm/min)	72.0	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	6400	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched, (23 °C, Type 1, Edgewise, Notch A)	7.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched, (23 °C, Type 1, Edgewise)	35	kJ/m ²	ISO 179
Thermal			
Vicat Softening Temperature, (A (10N))	165	°C	ISO 306
Deflection Temperature Under Load			
(0.45 MPa, Unannealed)	158	°C	ISO 75-2/B
(1.80 MPa, Unannealed)	138	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	UL 746A
Surface Resistivity	>1.0E+15	ohm	IEC 60093
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)	800	°C	IEC 60695-2-13
(3.0 mm)	800	°C	IEC 60695-2-13
UL Information			
Flammability Classification			
(1.6 mm)	V-0		IEC 60695-11-10, -20
(3.2 mm)	V-0		IEC 60695-11-10, -20

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	70 to 80	°C
Nozzle Temperature	220	°C
Processing (Melt) Temp	200 to 230	°C
Front Temperature	210	°C
Holding Pressure	40.0 to 90.0	MPa
Middle Temperature	200	°C
Rear Temperature	180	°C
Injection Rate	Slow-Moderate	
Back Pressure	5.00 to 10.0	MPa
Mold Temperature	40 to 80	°C
Injection Pressure	80.0 to 120	MPa
Cushion	<5.00	mm