

Technical Data Sheet

Polyflam RPP 374 ND CS1 NAT

Polypropylene, Homopolymer

Product Description

20% talc filled flame-retardant PP-homopolymer; without PBDE

Processing Method	Injection Molding
Attribute	Copper Contact Stabilized; Homopolymer
Additive	Flame Retardant
Filler/Reinforcement	Talc, 20%
Resin ID	PP TD20 FR(17)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (230 °C/2.16 kg)	19	cm ³ /10 min	ISO 1133
Density, (Method A)	1.35	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	21.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	2.5	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	3000	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	2.5	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	2.3	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	20	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	8.5	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (125 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	82.0	°C	ISO 306
(A (10N), 50 °C/h)	145	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	118	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0	°C	ISO 75-2/A
RTI Elec			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B

RTI Imp			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
RTI Str			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	600	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
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)	700	°C	IEC 60695-2-13
(3.0 mm)	700	°C	IEC 60695-2-13
Oxygen Index	26	%	ISO 4589-2
Additional Information			
Water Absorption 23C/50RH	0.16	%	ISO 62
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
Flammability Classification			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		

Injection Parameters		Nominal Value	Units
Drying Time		2.0 to 4.0	hr
Drying Temperature		70 to 80	°C
Nozzle Temperature		220	°C
Screw Speed		<300	mm/sec
Processing (Melt) Temp		180 to 220	°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