Technical Data Sheet

Polyflam RPP 374 ND CS15V 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)	5.0	cm³/10 min	ISO 1133
Density, (Method A)	1.45	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	27.0	MPa	ISO 527-2
Tensile Strain at Yield, (Type 1A, 50 mm/min)	2.0	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	3700	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	2.0	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	1.8	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	12	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	12	kJ/m²	ISO 179
Hardness			
Ball Pressure Test, (125 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	92.0	°C	ISO 306
(A (10N), 50 °C/h)	155	°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)	80.0	°C	ISO 75-2/A

RTI Elec			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
(1.8 mm)	105	°C	UL 746B
RTI Imp			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
(1.8 mm)	105	°C	UL 746B
RTI Str			
(1.5 mm)	105	°C	UL 746B
(3.0 mm)	105	°C	UL 746B
(1.8 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
High Amp Arc Ignition			UL 746A
N.A.			
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Hot-wire Ignition (HWI)			UL 746A
N.A.			
N.A.			
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
(1.8 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
(1.8 mm)	750	°C	IEC 60695-2-13
Oxygen Index	29	%	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
(3.0 mm)	5VA		UL 94
(1.8 mm)	5VA		UL 94
Flammability Classification			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(1.8 mm)	5VA		IEC 60695-11-10, -20
(3.0 mm)	5VA		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number, (Europe) E51193 (US)	E86615		

Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	70 to 80	°C
Nozzle Temperature	180 to 220	°C
Processing (Melt) Temp	180 to 220	°C
Front Temperature	180 to 210	°C
Holding Pressure	40.0 to 90.0	MPa
Middle Temperature	180 to 210	°C
Rear Temperature	180 to 199	°C
Back Pressure	<0.689	MPa
Mold Temperature	38 to 71	°C
Injection Pressure	80.0 to 120	MPa
Cushion	<5.00	mm