شركة ناتبت شولمان للمركبات البلاستيكية المتخصصة
Natpet Schulman Specialty Plastic Compounds

TDS Polyflam™ RPP 374 ND CS1

Polypropylene Homopolymer

Product

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

General

Material Status	Commercial: Active		
Availability	Africa & Middle East Latin America	Asia Pacific North America	Europe
Filler / Reinforcement	Talc, 20% Filler by Weight		
Features	Copper Contact Stabilized	Flame Retardant	Homopolymer
UL File Number	E86615		
Processing Method	Injection Molding		
Resin ID (ISO 1043)	PP TD20 FR(17)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.35 g/cm³	1.35 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	1.16 in³/10min	19.0 cm³/10min	ISO 1133
Water Absorption (73°F (23°C), 24 hr)	0.16%	0.16%	ISO 62

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	435000 psi	3000 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	3050 psi	21.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	3.0 %	3.0 %	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)	1.1 ft·lb/in²	2.3 kJ/m²	
73°F (23°C)	1.2 ft·lb/in²	2.5 kJ/m²	

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Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	4.0 ft·lb/in²	8.5 kJ/m²	
73°F (23°C)	4.8 ft·lb/in²	10 kJ/m²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	244°F	118°C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	183°F	84.0°C	ISO 75-2/Af
Vicat Softening Temperature			
--	293°F	145°C	ISO 306/A50
--	180°F	82.0°C	ISO 306/B50
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2
RTI Elec			UL 746
0.06 in (1.5 mm)	221°F	105°C	
0.12 in (3.0 mm)	221°F	105°C	
RTI Imp			UL 746
0.06 in (1.5 mm)	221°F	105°C	
0.12 in (3.0 mm)	221°F	105°C	
RTI Str			UL 746
0.06 in (1.5 mm)	221°F	105°C	
0.12 in (3.0 mm)	221°F	105°C	

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·cm	> 1.0E+13 ohms·cm	IEC 60093
Comparative Tracking Index	600 V	600 V	IEC 60112

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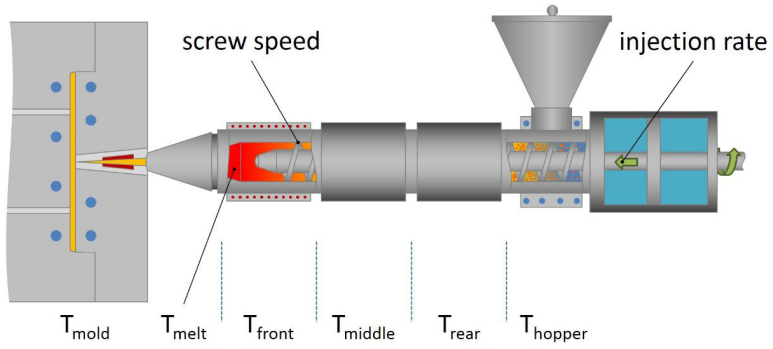
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			ISO 3795
0.0591 in (1.50 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	
0.118 in (3.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	
Flame Rating			UL 94 IEC 60695-11-10, -20
0.06 in (1.5 mm)	V-0	V-0	
0.12 in (3.0 mm)	V-0	V-0	
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	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1290°F	700°C	
0.12 in (3.0 mm)	1290°F	700°C	
Oxygen Index	26%	26%	ISO 4589-2



Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176°F	70 to 80°C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr

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Injection	Nominal Value (English)	Nominal Value (SI)
Rear Temperature	356°F	180°C
Middle Temperature	392°F	200°C
Front Temperature	410°F	210°C
Nozzle Temperature	428°F	220°C
Processing (Melt) Temp	356 to 428°F	180 to 220°C
Mold Temperature	104 to 176°F	40 to 80°C
Injection Pressure	11600 to 17400 psi	80.0 to 120 MPa
Injection Rate	Slow-Moderate	Slow-Moderate
Holding Pressure	5800 to 13100 psi	40.0 to 90.0 MPa
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Cushion	< 0.197 in	< 5.00 mm
Screw Speed	< 709 in/min	< 18 m/mi