

**Technical Data Sheet**  
**POLYFLAM® RPP 1275**  
 Polypropylene Homopolymer  
 Engineering Plastics



**Product Description**

20% talc filled flame retardant PP homopolymer, impact modified, without PBDE

**General**

Filler / Reinforcement	• Talc, 20% Filler by Weight		
Features	• Flame Retardant • Halogenated	• Homopolymer • Impact Modified	
UL File Number	• E86615		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP FR (17+72)		

**Physical**

	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.42 g/cm <sup>3</sup>	1.42 g/cm <sup>3</sup>	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	8.00 cm <sup>3</sup> /10min	8.00 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage	0.80 to 1.1 %	0.80 to 1.1 %	ISO 294-4

**Mechanical**

	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	435000 psi	3000 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	3800 psi	26.2 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	2.5 %	2.5 %	ISO 527-2/1A/50
Flexural Modulus <sup>1</sup>	479000 psi	3300 MPa	ISO 178
Flexural Stress <sup>1</sup>			ISO 178
4.0% Strain	6530 psi	45.0 MPa	
3.5% Strain	6530 psi	45.0 MPa	

**Impact**

	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.95 ft·lb/in <sup>2</sup>	2.0 kJ/m <sup>2</sup>	
73°F (23°C)	0.95 ft·lb/in <sup>2</sup>	2.0 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	4.8 ft·lb/in <sup>2</sup>	10 kJ/m <sup>2</sup>	
73°F (23°C)	12 ft·lb/in <sup>2</sup>	25 kJ/m <sup>2</sup>	

**Thermal**

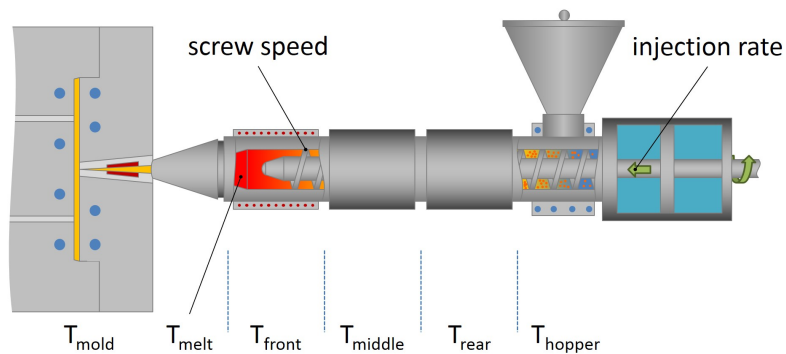
	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	239 °F	115 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	149 °F	65.0 °C	ISO 75-2/ Af
Vicat Softening Temperature			
--	302 °F	150 °C	ISO 306/A50
--	185 °F	85.0 °C	ISO 306/B50
RTI Elec			UL 746
0.030 in (0.75 mm)	239 °F	115 °C	
0.06 in (1.5 mm)	239 °F	115 °C	
0.12 in (3.0 mm)	248 °F	120 °C	
RTI Imp			UL 746
0.030 in (0.75 mm)	239 °F	115 °C	
0.06 in (1.5 mm)	239 °F	115 °C	
0.12 in (3.0 mm)	239 °F	115 °C	

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Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
RTI Str			UL 746
0.030 in (0.75 mm)	239 °F	115 °C	
0.06 in (1.5 mm)	239 °F	115 °C	
0.12 in (3.0 mm)	248 °F	120 °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·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	600 V	600 V	IEC 60112
High Amp Arc Ignition (HAI)			UL 746
0.030 in (0.75 mm)	PLC 0	PLC 0	
0.06 in (1.5 mm)	PLC 0	PLC 0	
0.12 in (3.0 mm)	PLC 0	PLC 0	
Hot-wire Ignition (HWI)			UL 746
0.030 in (0.75 mm)	PLC 3	PLC 3	
0.06 in (1.5 mm)	PLC 2	PLC 2	
0.12 in (3.0 mm)	PLC 2	PLC 2	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	ISO 3795
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	FMVSS 302
Flame Rating			
0.031 in (0.8 mm)	V-0	V-0	UL 94
0.06 in (1.6 mm)	V-0	V-0	UL 94 IEC 60695-11-10, -20
0.13 in (3.2 mm)	V-0	V-0	UL 94 IEC 60695-11-10, -20
0.03 in (0.8 mm)	V-0	V-0	IEC 60695-11-10, -20
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in (0.75 mm)	1760 °F	960 °C	
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
0.030 in (0.75 mm)	1290 °F	700 °C	
0.06 in (1.5 mm)	1290 °F	700 °C	
0.12 in (3.0 mm)	1290 °F	700 °C	

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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
Processing (Melt) Temp	356 to 410 °F	180 to 210 °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 11600 psi	40.0 to 80.0 MPa
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa