

POLYFLAM® RPP 4000 E

Polypropylene Homopolymer

A. Schulman Europe

Message:

Unfilled flame-retardant PP-Homopolymer, Extrusion grade, halogenfree

General Information			
Features	Homopolymer		
	Workability, good		
	Halogen-free		
	Flame retardancy		
Processing Method	Extrusion		
	Injection molding		
Resin ID (ISO 1043)	PP FR(51)		
Physical	Nominal Value	Unit	Test Method
Density	1.06	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	2.00	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2600	MPa	ISO 527-2/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	26.8	MPa	ISO 527-2/1A/50
Fracture	16.6	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	4.1	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	26	%	ISO 527-2/1A/50
Flexural Modulus ¹	2300	MPa	ISO 178
Flexural Stress ²			ISO 178
5.1% strain	39.0	MPa	ISO 178
3.5% strain	37.1	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	1.5	kJ/m ²	ISO 179/1eA
23°C	2.5	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	15	kJ/m ²	ISO 179/1eU
23°C	40	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			

0.45 MPa, not annealed	108	°C	ISO 75-2/B
1.8 MPa, not annealed	58.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	154	°C	ISO 306/A50
--	97.0	°C	ISO 306/B50
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.8 mm	V-0		IEC 60695-11-10, -20
1.6 mm	V-0		IEC 60695-11-10, -20
3.2 mm	V-0		IEC 60695-11-10, -20
	5V		
3.0 mm	5VA		IEC 60695-11-10, -20
Glow Wire Flammability Index			IEC 60695-2-12
0.75 mm	960	°C	IEC 60695-2-12
1.5 mm	960	°C	IEC 60695-2-12
3.0 mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.75 mm	775	°C	IEC 60695-2-13
1.5 mm	775	°C	IEC 60695-2-13
3.0 mm	775	°C	IEC 60695-2-13
Additional Information			
1.) Not for use in food contact applications2.) Not for use in medical or pharmaceutical applications			
Injection	Nominal Value	Unit	
Drying Temperature	70	°C	
Drying Time	2.0 - 4.0	hr	
Processing (Melt) Temp	180 - 210	°C	
Mold Temperature	40 - 80	°C	
Injection Pressure	80.0 - 120	MPa	
Injection Rate	Slow-Moderate		
Holding Pressure	40.0 - 90.0	MPa	
Back Pressure	5.00 - 10.0	MPa	
Screw Speed		mm/sec	
Injection instructions			
PredryingPredrying at 70°C for 2-4 hours is recommended as a precaution.ReprocessingAddition of regrind is normally possible, but it must be tested in each case regarding the percentage and requirements of the article. Thermal damage during first processing depends on processing parameters and the geometry of flow path and article.Shut downAvoid long melt residence time. Purge with base polymer or with polyolefines.FinishingMachining is usually possible.			

NOTE

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| 1. | 2.0 mm/min |
| 2. | 2.0 mm/min |

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

