

# Polyflam RPP 4225 CS1 NAT

## LyondellBasell Industries - Polypropylene Homopolymer

### General Information

#### Product Description

25% glass fibre reinforced flame-retardant PP-Homopolymer; halogen free

#### General

Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight
Additive	• Copper Stabilizer • Flame Retardant
Features	• Copper Contact Stabilized • Halogen Free • Homopolymer • Flame Retardant • High Strength • Low Density
Processing Method	• Injection Molding
Resin ID	• PP GF25 FR(51)

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.26	g/cm <sup>3</sup>	ISO 1183/A
Melt Volume-Flow Rate (MVR)			ISO 1133
230°C/2.16 kg	4.0	cm <sup>3</sup> /10min	
230°C/5.0 kg	12	cm <sup>3</sup> /10min	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.06E+6	psi	ISO 527-1/1A/1
Tensile Stress (Break)	11600	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.0	ft·lb/in <sup>2</sup>	
73°F	4.3	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	16	ft·lb/in <sup>2</sup>	
73°F	18	ft·lb/in <sup>2</sup>	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	315	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	291	°F	ISO 75-2/Af
Vicat Softening Temperature			
--	279	°F	ISO 306/B50
--	327	°F	ISO 306/A50
Ball Pressure Test (311°F)	Pass		IEC 60695-10-2
RTI Elec			UL 746B
0.06 in	149	°F	
0.12 in	149	°F	
RTI Imp			UL 746B
0.06 in	149	°F	
0.12 in	149	°F	

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<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
RTI Str			UL 746B
0.06 in	149	°F	
0.12 in	149	°F	
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1
Electric Strength <sup>2</sup> (73°F, 0.0394 in, in Oil)	970	V/mil	IEC 60243-1
Comparative Tracking Index	600	V	IEC 60112
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate <sup>3</sup>			
0.0787 in	0.0	in/min	FMVSS 302
0.0787 in	0.0	in/min	ISO 3795
Flame Rating			UL 94
0.031 in	V-2		
0.06 in	V-0		
0.12 in	5VA		
Flammability Classification			IEC 60695-11-10, -20
0.06 in	V-0		
0.12 in	V-0		
0.03 in	V-2		
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in	1760	°F	
0.12 in	1760	°F	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in	1560	°F	
0.12 in	1560	°F	
Oxygen Index	44	%	ISO 4589-2

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature	158 to 176	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	356	°F
Middle Temperature	392	°F
Front Temperature	410	°F
Nozzle Temperature	428	°F
Processing (Melt) Temp	392 to 446	°F
Mold Temperature	104 to 176	°F
Injection Pressure	11600 to 17400	psi
Injection Rate	Slow-Moderate	
Holding Pressure	5800 to 13100	psi
Back Pressure	725 to 1450	psi
Screw Speed	< 709	in/min
Cushion	< 0.197	in