

# Polyflam RIPP 510 D NAT

## LyondellBasell Industries - Polypropylene Copolymer

### General Information

#### Product Description

Flame retardant PP-copolymer - grade without PBDE

#### General

Additive	• Flame Retardant
Features	• Copolymer • Flame Retardant
Processing Method	• Injection Molding

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

Physical	Nominal Value	Unit	Test Method
Density	0.940	g/cm <sup>3</sup>	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	5.5	cm <sup>3</sup> /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	160000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	3340	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	12	%	ISO 527-2/1A/50
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.4	ft-lb/in <sup>2</sup>	
73°F	9.5	ft-lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	29	ft-lb/in <sup>2</sup>	
73°F	No Break		
Notched Izod Impact (Area) (73°F)	4.76	ft-lb/in <sup>2</sup>	ASTM D256
Notched Izod Impact Strength			ISO 180/1A
-40°F	2.1	ft-lb/in <sup>2</sup>	
73°F	3.3	ft-lb/in <sup>2</sup>	
Unnotched Izod Impact Strength			ISO 180/1U
-40°F	21	ft-lb/in <sup>2</sup>	
73°F	No Break		
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	8990	psi	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	221	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	140	°F	ISO 75-2/Af
Vicat Softening Temperature			
--	165	°F	ISO 306/B50
--	288	°F	ISO 306/A120
Ball Pressure Test (248°F)	Pass		IEC 60695-10-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1

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<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Comparative Tracking Index	600	V	IEC 60112
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flammability Classification			IEC 60695-11-10, -20
0.030 in		V-2	
0.06 in		V-2	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in	1760	°F	
0.06 in	1760	°F	
0.12 in	1760	°F	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 in	1290	°F	
0.06 in	1250	°F	
0.12 in	1250	°F	
Oxygen Index	29	%	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	356 to 428	°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