

Polyflam HSF 36 NAT

LyondellBasell Industries - General Purpose Polystyrene

General Information

Product Description

High impact flame-retardant PS grade; without PBDE

General

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

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.18	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	5.0	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	305000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	3630	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	2.0	%	ISO 527-2/1A/50
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	0.95	ft·lb/in ²	
73°F	4.8	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	19	ft·lb/in ²	
73°F	38	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	187	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	167	°F	ISO 75-2/Af
Vicat Softening Temperature			
--	187	°F	ISO 306/B50
--	212	°F	ISO 306/A50
Ball Pressure Test (176°F)	Pass		IEC 60695-10-2
RTI Elec			UL 746B
0.06 in	122	°F	
0.12 in	122	°F	
RTI Imp			UL 746B
0.06 in	122	°F	
0.12 in	122	°F	
RTI Str			UL 746B
0.06 in	122	°F	
0.12 in	122	°F	
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

Polyflam HSF 36 NAT

LyondellBasell Industries - General Purpose Polystyrene

Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	350	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate ²			
0.0787 in	0.0	in/min	FMVSS 302
0.0787 in	0.0	in/min	ISO 3795
Flame Rating			UL 94
0.06 in	V-0		
0.12 in	V-0		
0.15 in	V-0		
Flammability Classification			IEC 60695-11-10, -20
0.06 in	V-0		
0.12 in	V-0		
0.15 in	V-0		
0.08 in	5VB		
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	1200	°F	
0.12 in	1160	°F	
Oxygen Index	26	%	ISO 4589-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	158 to 176	°F
Drying Time	2.0 to 4.0	hr
Processing (Melt) Temp	374 to 428	°F
Mold Temperature	86 to 140	°F
Injection Rate	Slow-Moderate	
Back Pressure	725 to 1450	psi
Screw Speed	< 709	in/min

Notes

¹ Typical properties: these are not to be construed as specifications.

² Self-Extinguishing