

Polyflam SDR 5005 HP25 WHI81990

LyondellBasell Industries - General Purpose Polystyrene

General Information

Product Description

non reinforced flame-retardant PS, mixing grade. Data are based on 100% compound.

General

Processing Method	• Injection Molding
Resin ID	• PSHI (FR 16)

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	35	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	363000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	4350	psi	ISO 527-2/1A/50
Tensile Stress (Break)	3630	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	2.0	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	15	%	ISO 527-2/50
Flexural Modulus ²	392000	psi	ISO 178
Flexural Stress ²			ISO 178
4.3% Strain	7250	psi	
3.5% Strain	7250	psi	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	0.95	ft·lb/in ²	
73°F	2.9	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	21	ft·lb/in ²	
73°F	24	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	163	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed	153	°F	ISO 75-2/Af
Vicat Softening Temperature			
--	171	°F	ISO 306/B50
--	185	°F	ISO 306/A50
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.031 in		V-2	
0.06 in		V-2	
0.13 in		V-2	

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Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.03 in		V-2	
0.06 in		V-2	
0.13 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	

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 410	°F
Mold Temperature	86 to 140	°F
Injection Rate	Slow-Moderate	
Back Pressure	725 to 1450	psi
Screw Speed	< 591	in/min

Notes

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

² 0.079 in/min