Technical Data Sheet

Polyflam SDR 5005 WHITE 88315 HP25

General Purpose Polystyrene
LyondellBasell Industries
Engineering Plastics

Product Description	
non reinforced flame-retardant PS, mixing grade. Data are based on 100% compound.	
General	
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PSHI (FR 16)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.19 g/cm³	1.19 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (200°c/5.0 Kg)	35 cm³/10min	35 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	363000 psi	2500 MPa	ISO 527-1/1A/1
Tensile Stress			ISO 527-2/1A/50
Yield	4350 psi	30.0 MPa	
Break	3630 psi	25.0 MPa	
Tensile Strain (Yield)	2.0 %	2.0 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	15 %	15 %	ISO 527-2/50
Flexural Modulus [1]	392000 psi	2700 MPa	ISO 178
Flexural Stress [1]			ISO 178
4.3% Strain	7250 psi	50.0 MPa	
3.5% Strain	7250 psi	50.0 MPa	
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°f (-30°c)	0.95 ft·lb/in²	2.0 kJ/m²	
73°f (23°c)	2.9 ft·lb/in²	6.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°f (-30°c)	21 ft·lb/in²	45 kJ/m²	
73°f (23°c)	24 ft·lb/in²	50 kJ/m²	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	163 °F	73.0 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	153 °F	67.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	171 °F	77.0 °C	ISO 306/B50
--	185 °F	85.0 °C	ISO 306/A50

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			
0.031 In (0.8 Mm)	V-2	V-2	UL 94
0.06 In (1.6 Mm)	V-2	V-2	UL 94 IEC 60695-11-10, -20
0.13 In (3.2 Mm)	V-2	V-2	UL 94 IEC 60695-11-10, -20
0.03 In (0.8 Mm)	V-2	V-2	IEC 60695-11-10, -20
Glow Wire Flammability Index			IEC 60695-2-12
0.030 In (0.75 Mm)	1760 °F	960 °C	
0.06 In (1.5 Mm)	1760 °F	960 °C	
0.12 In (3.0 Mm)	1760 °F	960 °C	

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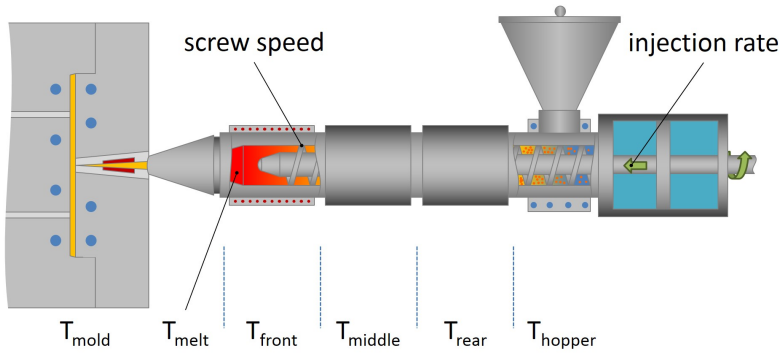

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Processing (Melt) Temp	374 to 410 °F	190 to 210 °C
Mold Temperature	86 to 140 °F	30 to 60 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	725 to 1450 psi	5.00 to 10.0 MPa
Screw Speed	< 591 in/min	< 15 m/min
Injection Notes		
Mould surface contacting melt should be of non-corrosive steel (content of chrome > 12%)		

Notes

[1] 0.079 in/min (2.0 mm/min)

Notes

These are typical property values not to be construed as specification limits.