Polyflam SDR 5000 GRY64540

LyondellBasell Industries - High Impact Polystyrene

General Information

Product Description

Flame-retardant high impact polystyrene (HIPS) without PBDE; without HBCD.

General

Additive	• Flame Retardant	
Features	• Flame Retardant • Good Flow	• Good Processability • High Impact Resistance
Processing Method	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.08	g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	13	cm³/10min	ISO 1133
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	348000	psi	ISO 527-1/1A/1
Tensile Stress (Yield)	4060	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	1.7	%	ISO 527-2/1A/50
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.4	ft·lb/in²	
73°F	2.4	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	20	ft·lb/in²	
73°F	29	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	172	°F	ISO 75-2/Bf
Deflection Temperature Under Load			ISO 75-2/Af
264 psi, Unannealed	158	°F	
Vicat Softening Temperature			
--	185	°F	ISO 306/B50
--	198	°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

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Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	375	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Burning Rate [2]			
0.0787 in	0.0	in/min	ISO 3795
0.0787 in	0.0	in/min	FMVSS 302
Flame Rating			UL 94
0.06 in	V-2		
0.12 in	V-2		
Flammability Classification			IEC 60695-11-10, -20
0.06 in	V-2		
0.12 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	1200	°F	
0.12 in	1200	°F	
Oxygen Index	24	%	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	356 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] Self-Extinguishing