

POLYFLAM® SDR 5005

General Purpose Polystyrene

A. Schulman Europe

Message:

Flame retardant PS standard grade, without PBDE and HBCD

General Information			
UL YellowCard	E188844-102210992		
Features	No antimony		
	Flame retardancy		
UL File Number	E86615		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.06	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	12.5	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2550	MPa	ISO 527-2/1A/1
Tensile Stress			
Yield	33.0	MPa	ISO 527-2/1A/50
Fracture	27.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	1.6	%	ISO 527-2/1A/50
Nominal Tensile Strain at Break	35	%	ISO 527-2/50
Flexural Modulus ¹	2700	MPa	ISO 178
Flexural Stress ²			ISO 178
3.5% strain	49.0	MPa	ISO 178
5.3% strain	50.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	5.0	kJ/m ²	ISO 179/1eA
23°C	7.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	60	kJ/m ²	ISO 179/1eU
23°C	70	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	79.0	°C	ISO 75-2/Bf
1.8 MPa, not annealed	73.0	°C	ISO 75-2/Af
Vicat Softening Temperature			

--	92.0	°C	ISO 306/A50
--	85.0	°C	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94, IEC 60695-11-10, -20
1.50 mm	V-2		UL 94, IEC 60695-11-10, -20
3.00 mm	V-2		UL 94, IEC 60695-11-10, -20
Glow Wire Flammability Index			IEC 60695-2-12
1.50 mm	960	°C	IEC 60695-2-12
3.00 mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.50 mm	825	°C	IEC 60695-2-13
3.00 mm	825	°C	IEC 60695-2-13

Additional Information

- 1.)
Not for use in food contact applications2.)
Not for use in medical or pharmaceutical applications

Injection	Nominal Value	Unit
Drying Temperature	70.0 - 80.0	°C
Drying Time	2.0 - 4.0	hr
Rear Temperature	170	°C
Middle Temperature	190	°C
Front Temperature	190	°C
Nozzle Temperature	200	°C
Processing (Melt) Temp	170 - 200	°C
Mold Temperature	30.0 - 60.0	°C
Injection Pressure	80.0 - 120	MPa
Injection Rate	Slow-Moderate	
Holding Pressure	40.0 - 90.0	MPa
Back Pressure	5.00 - 10.0	MPa
Cushion	< 5.00	mm
Screw Speed		mm/sec

NOTE

1. 2.0 mm/min
2. 2.0 mm/min

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