

POLYFLAM® SDR 5000

General Purpose Polystyrene

A. Schulman Europe

Message:

Flame-retardant PS standard grade without PBDE; without HBCD

General Information			
UL YellowCard	E86615-100741572	E188844-102210991	
Features	Impact resistance, good		
	Workability, good		
	Good liquidity		
	Flame retardancy		
UL File Number	E86615		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.08	g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	13.0	cm³/10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	28.0	MPa	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
-30°C	3.0	kJ/m²	ISO 179/1eA
23°C	5.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	41	kJ/m²	ISO 179/1eU
23°C	60	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	78.0	°C	ISO 75-2/Bf
1.8 MPa, not annealed	70.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	92.0	°C	ISO 306/A50
--	85.0	°C	ISO 306/B50
Ball Pressure Test (80°C)	Pass		IEC 60695-10-2
RTI Elec			UL 746
1.50 mm	50.0	°C	UL 746

3.00 mm	50.0	°C	UL 746
RTI Imp			UL 746
1.50 mm	50.0	°C	UL 746
3.00 mm	50.0	°C	UL 746
RTI			UL 746
1.50 mm	50.0	°C	UL 746
3.00 mm	50.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	375	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate			ISO 3795
1.50mm, automatic fire extinguishing	0.0	mm/min	ISO 3795
3.00mm, automatic fire extinguishing	0.0	mm/min	ISO 3795
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	650	°C	IEC 60695-2-13
3.00 mm	650	°C	IEC 60695-2-13
Oxygen Index	24	%	ISO 4589-2

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

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