

Technical Data Sheet



SCHULAMID® 6 GF 25 FR

Polyamide 6
Engineering Plastics

Product Description

25% glass fibre reinforced flame-retardant Polyamide 6 grade (V-2); without PBDE

General

Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight
Features	<ul style="list-style-type: none"> • Flame Retardant • Good Electrical Properties • Halogen Free • Low (to None) Phosphorus Content
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6 GF25 FR(30)

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183/A
Molding Shrinkage				ISO 294-4
Across Flow	1.4	--	%	
Flow	0.40	--	%	
Viscosity Number	145	--	cm ³ /g	ISO 307

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	972000 (6700)	406000 (2800)	psi (MPa)	ISO 527-2/1A/1
Tensile Stress (Break)	13200 (91.0)	6380 (44.0)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	21	%	ISO 527-2/1A/5

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	4.3 (9.0)	1.4 (3.0)	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	1.7 (3.5)	--	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	13 (27)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	14 ft·lb/in ² (30 kJ/m ²)	No Break	(kJ/m ²)	

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	397 (203)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	257 (125)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	421 (216)	--	°F (°C)	ISO 306/A50
--	399 (204)	--	°F (°C)	ISO 306/B50
Ball Pressure Test (392°F (200°C))	Pass	--		IEC 60695-10-2
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index	525	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				ISO 3795
0.0591 in (1.50 mm), Self-Extinguishing	0.0	--	in/min (mm/min)	
0.118 in (3.00 mm), Self-Extinguishing	0.0	--	in/min (mm/min)	
Flame Rating				UL 94 IEC 60695-11-10, -20
0.06 in (1.5 mm)	V-2	--		
0.12 in (3.0 mm)	V-2	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.06 in (1.5 mm)	1760 (960)	--	°F (°C)	
0.12 in (3.0 mm)	1760 (960)	--	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.06 in (1.5 mm)	1290 (700)	--	°F (°C)	
0.12 in (3.0 mm)	1290 (700)	--	°F (°C)	
Oxygen Index	24	--	%	ISO 4589-2

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Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Suggested Max Regrind	25 %	25 %
Processing (Melt) Temp	464 to 500 °F	240 to 260 °C
Mold Temperature	140 to 212 °F	60 to 100 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	290 to 1160 psi	2.00 to 8.00 MPa
Screw Speed	< 591 in/min	< 15 m/min

Notes

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