

Technical Data Sheet

SCHULAMID[®] 66 GF 40 FR 2

Polyamide 66
Engineering Plastics

Product Description
40% glass fibre reinforced flame-retardant Polyamide 66 grade; halogen free

General	
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Features	• Flame Retardant • Halogen Free
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66 GF40 FR(40)

Physical	Dry	Conditioned	Unit	Test Method
Density	1.52	--	g/cm ³	ISO 1183/A
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.20	--	%	
Viscosity Number	146	--	cm ³ /g	ISO 307

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.19E+6 (15100)	1.65E+6 (11400)	psi (MPa)	ISO 527-2/1A/1
Tensile Stress (Break)	24700 (170)	17400 (120)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	2.2	3.0	%	ISO 527-2/1A/5

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	5.5 (12)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	4.8 (10)	5.7 (12)	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	31 (65)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	36 (75)	33 (70)	ft·lb/in ² (kJ/m ²)	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	482 (250)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	480 (249)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	482 (250)	--	°F (°C)	ISO 306/A50
--	475 (246)	--	°F (°C)	ISO 306/B50

Technical Data Sheet

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+12	ohms	IEC 60093
Volume Resistivity	--	1.0E+10	ohms·m	IEC 62631-3-1
Comparative Tracking Index	550	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.030 in (0.75 mm)	V-0	--		
0.06 in (1.5 mm)	V-0	--		
0.12 in (3.0 mm)	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.030 in (0.75 mm)	1760 (960)	--	°F (°C)	
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
0.030 in (0.75 mm)	1430 (775)	--	°F (°C)	
0.06 in (1.5 mm)	1470 (800)	--	°F (°C)	
0.12 in (3.0 mm)	1470 (800)	--	°F (°C)	
Oxygen Index	40	--	%	ISO 4589-2

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Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Suggested Max Regrind	25 %	25 %
Processing (Melt) Temp	518 to 572 °F	270 to 300 °C
Mold Temperature	140 to 194 °F	60 to 90 °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

Injection Notes

Mould surfaces in contact with melt should be of non-corrosive steel, chrome content >12%

Notes

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