Technical Data Sheet

SCHULAMID® 612 GF 50

Polyamide 612
Engineering Plastics

Product Description
50% glass fiber reinforced, Polyamide 612 compound with high strength after conditioning (available with different kinds of heat stabilization systems)

General			
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Features	• Chemical Resistant	• Heat Aging Resistant	
Processing Method	• Gas-Assisted Injection Molding	• Injection Molding	• Water-Assisted Injection Molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.51	--	g/cm³	ISO 1183/A
Water Absorption				ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.90	--	%	
Viscosity Number (H2SO4 (Sulphuric Acid))	110	--	cm³/g	ISO 307

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.26E+6 (15600)	1.84E+6 (12700)	psi (MPa)	ISO 527-2/1A/1
Tensile Stress (Break)	33400 (230)	27600 (190)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	3.6	%	ISO 527-2/1A/5
Flexural Modulus [1] (73°F (23°C))	2.03E+6 (14000)	--	psi (MPa)	ISO 178
Flexural Stress [1] (3.6% Strain, 73°F (23°C))	50800 (350)	--	psi (MPa)	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-40°F (-40°C)	6.7 (14)	--	ft·lb/in² (kJ/m²)	
73°F (23°C)	7.1 (15)	7.6 (16)	ft·lb/in² (kJ/m²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F (-40°C)	No Break	--		
73°F (23°C)	No Break	34 ft·lb/in² (72 kJ/m²)	(kJ/m²)	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	424 (218)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	401 (205)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	421 (216)	--	°F (°C)	ISO 306/A50
--	406 (208)	--	°F (°C)	ISO 306/B50

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	> 1.0E+15	> 1.0E+12	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	> 1.0E+10	ohms·m	IEC 62631-3-1
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate				
0.0787 in (2.00 mm)	2.0 (50)	--	in/min (mm/min)	ISO 3795
0.0787 in (2.00 mm)	2.0 (50)	--	in/min (mm/min)	FMVSS 302
Flammability Classification				IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	--		
0.12 in (3.0 mm)	HB	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.06 in (1.5 mm)	1200 (650)	--	°F (°C)	
0.12 in (3.0 mm)	1200 (650)	--	°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)	

Additional Information

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

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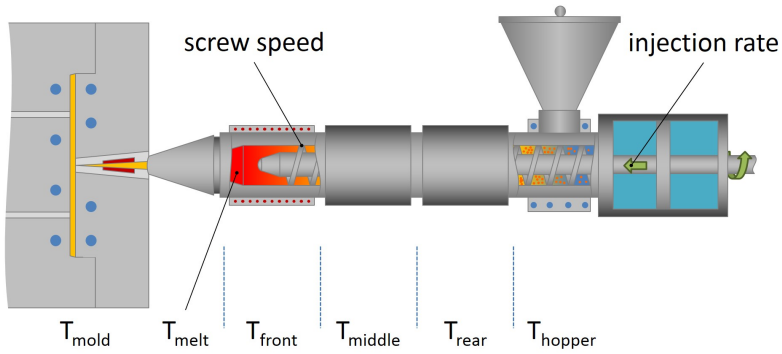

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	464 to 536 °F	240 to 280 °C
Mold Temperature	122 to 194 °F	50 to 90 °C

Notes

[1] 0.079 in/min (2.0 mm/min)

Notes

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