



SCHULAMID[®] 6 GF 30 H

Polyamide 6
Engineering Plastics

Product Description

30% glass fiber reinforced, heat stabilized Polyamide 6

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Good Toughness • Heat Aging Resistant	• High Stiffness • Oil Resistant	
Automotive Specifications	• FORD WSK-M4D664-A • FORD WSS-M4D993-B1	• GM GMP.PA6.054 Color: Black • GM GMP.PA6.054 Color: Natural	• GM GMP.PA6.056 Color: Black • GM GMP.PA6.056 Color: Natural
UL File Number	• E86615		
Processing Method	• Injection Molding		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm ³	ISO 1183/A
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.20	--	%	
Viscosity Number	145	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.33E+6 (9200)	725000 (5000)	psi (MPa)	ISO 527-2/1A/1
Tensile Stress (Break)	23900 (165)	14500 (100)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	3.5	8.0	%	ISO 527-2/1A/5
Flexural Modulus	1.13E+6 (7800)	--	psi (MPa)	ISO 178
Flexural Stress	30500 (210)	--	psi (MPa)	ISO 178
Flexural Strain at Flexural Strength	3.7	--	%	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	4.3 (9.0)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	6.7 (14)	14 (30)	ft·lb/in ² (kJ/m ²)	



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Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	29 (60)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	40 (85)	No Break	ft·lb/in ² (kJ/m ²)	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 358/30)	29000 (200)	--	psi (MPa)	ISO 2039-1
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	428 (220)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	392 (200)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	423 (217)	--	°F (°C)	ISO 306/A50
--	410 (210)	--	°F (°C)	ISO 306/B50
RTI Elec				UL 746
0.030 in (0.75 mm)	257 (125)	--	°F (°C)	
0.06 in (1.5 mm)	257 (125)	--	°F (°C)	
0.12 in (3.0 mm)	257 (125)	--	°F (°C)	
RTI Imp				UL 746
0.030 in (0.75 mm)	239 (115)	--	°F (°C)	
0.06 in (1.5 mm)	248 (120)	--	°F (°C)	
0.12 in (3.0 mm)	257 (125)	--	°F (°C)	
RTI Str				UL 746
0.030 in (0.75 mm)	266 (130)	--	°F (°C)	
0.06 in (1.5 mm)	266 (130)	--	°F (°C)	
0.12 in (3.0 mm)	266 (130)	--	°F (°C)	
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·cm	IEC 60093



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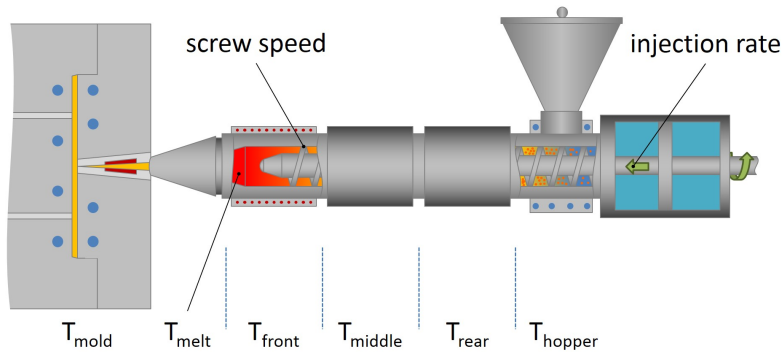
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Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index	450	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				
0.0787 in (2.00 mm)	< 1.2 (< 30)	--	in/min (mm/min)	ISO 3795
0.0787 in (2.00 mm)	< 1.2 (< 30)	--	in/min (mm/min)	FMVSS 302
Flammability Classification				IEC 60695-11-10, -20
0.030 in (0.75 mm)	HB	--		
0.06 in (1.5 mm)	HB	--		
0.12 in (3.0 mm)	HB	--		



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Injection	Dry (English)	Dry (SI)
Drying Temperature - Desiccant Dryer	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 Re grind	20 %	20 %
Processing (Melt) Temp	482 to 536 °F	250 to 280 °C
Mold Temperature	140 to 212 °F	60 to 100 °C