

Technical Data Sheet

SCHULAMID® 6 MT 20 H FR 4

Polyamide 6
Engineering Plastics

Product Description

20% talc filled flame-retardant Polyamide 6, heat stabilized

General

Filler / Reinforcement	• Talc\Mineral, 20% Filler by Weight
Features	• Flame Retardant
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA6 MD 20 FR(17)

Physical	Dry	Conditioned	Unit	Test Method
Density	1.52	--	g/cm ³	ISO 1183/A

Viscosity Number	145	--	cm ³ /g	ISO 307
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Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	870000 (6000)	312000 (2150)	psi (MPa)	ISO 527-2/1A/1
Tensile Stress (Break)	8850 (61.0)	5080 (35.0)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	3.7	50	%	ISO 527-2/1A/5

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	1.2 (2.5)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	1.4 (3.0)	6.7 (14)	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	18 (37)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	19 ft·lb/in ² (40 kJ/m ²)	No Break	(kJ/m ²)	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
66 psi (0.45 MPa), Unannealed	363 (184)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	225 (107)	--	°F (°C)	ISO 75-2/Af
Ball Pressure Test (392°F (200°C))	Pass	--		IEC 60695-10-2

Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	> 1.0E+15	--	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	> 1.0E+10	ohms·m	IEC 62631-3-1
Comparative Tracking Index	250	--	V	IEC 60112

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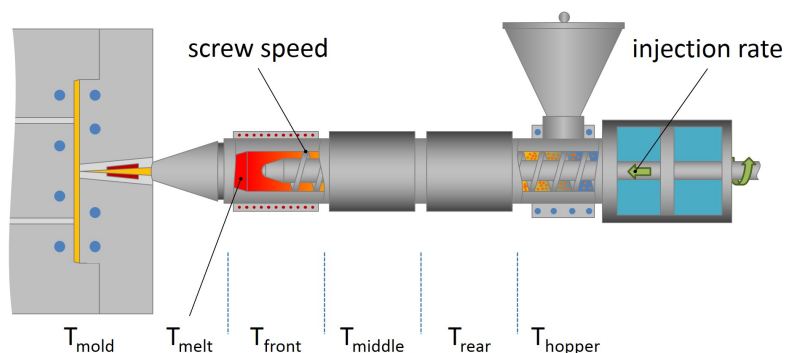
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Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				ISO 3795
0.0295 in (0.750 mm), Self-Extinguishing	0.0	--	in/min (mm/min)	
0.0591 in (1.50 mm), Self-Extinguishing	0.0	--	in/min (mm/min)	
Flame Rating (0.06 in (1.5 mm))	V-0	--		UL 94 IEC 60695-11-10, -20
Glow Wire Flammability Index				IEC 60695-2-12
0.06 in (1.5 mm)	1760 (960)	--	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.06 in (1.5 mm)	1470 (800)	--	°F (°C)	

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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 Regrind	25 %	25 %
Processing (Melt) Temp	464 to 518 °F	240 to 270 °C
Mold Temperature	122 to 176 °F	50 to 80 °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 surface contacting melt should
be of non-corrosive steel (content of chrome > 12%)

Notes

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