Technical Data Sheet

SCHULAMID® 6 CF 20 H Black

Polyamide 6
Engineering Plastics

Product Description
20% carbon fiber reinforced Polyamide 6, available with different kinds of heat stabilizations systems

General	
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight
Processing Method	• Injection Molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.22	--	g/cm³	ISO 1183/A
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.30	--	%	
Viscosity Number	145	--	cm³/g	ISO 307
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	2.23E+6 (15400)	1.20E+6 (8300)	psi (MPa)	ISO 527-2/1A/1
Tensile Stress (Break)	28300 (195)	18100 (125)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	6.0	%	ISO 527-2/1A/5
Flexural Modulus [1]	1.97E+6 (13600)	--	psi (MPa)	ISO 178
Flexural Stress [1]				ISO 178
3.3% Strain	43500 (300)	--	psi (MPa)	
3.5% Strain [2]	42100 (290)	--	psi (MPa)	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	2.4 (5.0)	--	ft·lb/in² (kJ/m²)	
73°F (23°C)	3.8 (8.0)	9.0 (19)	ft·lb/in² (kJ/m²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	26 (55)	--	ft·lb/in² (kJ/m²)	
73°F (23°C)	33 (70)	43 (90)	ft·lb/in² (kJ/m²)	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				ISO 75-2/Af
264 psi (1.8 MPa), Unannealed	410 (210)	--	°F (°C)	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+3	--	ohms	IEC 60093
Volume Resistivity	1.0E+2	--	ohms·m	IEC 62631-3-1

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Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate				
0.0787 in (2.00 mm)	< 3.9 (< 100)	--	in/min (mm/min)	ISO 3795
0.0787 in (2.00 mm)	< 3.9 (< 100)	--	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	--		

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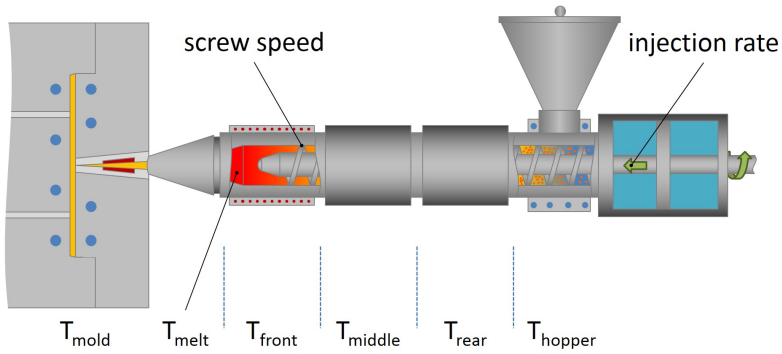

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	482 to 536 °F	250 to 280 °C
Mold Temperature	140 to 212 °F	60 to 100 °C

Notes

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

[2] at Break

Notes

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