Technical Data Sheet

Schulamid 66 CF 20 H

Polyamide 66
LyondellBasell Industries
Engineering Plastics

Product Description
20% carbon fiber reinforced, heat stabilized Polyamide 66 with very high tensile strength

General			
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight		
Features	• Good Toughness • Heat Aging Resistant	• Low Density • Low Friction	• Oil Resistant • Ultra High Stiffness
Processing Method	• Injection Molding		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.21	--	g/cm³	ISO 1183/A
Water Absorption				ISO 62
Equilibrium, 73°f (23°c), 50% Rh	1.7	--	%	
Viscosity Number	145	--	cm³/g	ISO 307
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	2.47E+6 (17000)	1.60E+6 (11000)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Break)	31900 (220)	23200 (160)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	2.8	5.2	%	ISO 527-2/1A/5
Flexural Modulus	1.89E+6 (13000)	--	psi (MPa)	ISO 178
Flexural Stress	45700 (315)	--	psi (MPa)	ISO 178
Flexural Strain at Flexural Strength	3.6	--	%	ISO 178
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)	7.1 (15)	ft·lb/in² (kJ/m²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°f (-30°c)	21 (45)	--	ft·lb/in² (kJ/m²)	
73°f (23°c)	29 (60)	40 (85)	ft·lb/in² (kJ/m²)	
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	43500 (300)	--	psi (MPa)	ISO 2039-1

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 Psi (0.45 Mpa), Unannealed	> 482 (> 250)	--	°F (°C)	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	475 (246)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature	> 482 (> 250)	--	°F (°C)	ISO 306/B50 ISO 306/A50
Ball Pressure Test (428°f (220°c))	Pass	--		IEC 60695-10-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+4	> 1.0E+6	ohms	IEC 60093
Volume Resistivity	> 1.0E+3	--	ohms·cm	IEC 60093
Comparative Tracking Index	100	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
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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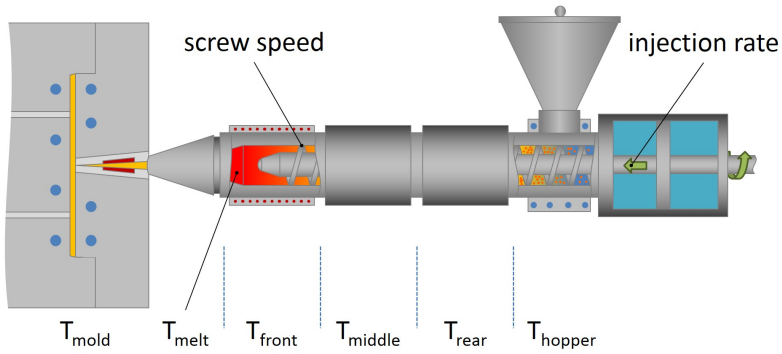

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Processing (Melt) Temp	536 to 572 °F	280 to 300 °C
Mold Temperature	140 to 248 °F	60 to 120 °C

Notes

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