Technical Data Sheet

Schulamid 6 GF 30 FR 2 BLACK HL3

Polyamide 6
LyondellBasell Industries
Engineering Plastics

Product Description
30% glass fibre reinforced flame-retardant Polyamide 6 grade; halogen free

General		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Features	• Flame Retardant	• Halogen Free
UL File Number	• E86615	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6 GF30 FR(40)	

Physical	Dry	Conditioned	Unit	Test Method
Density	1.44	--	g/cm³	ISO 1183/A
Viscosity Number	145	--	cm³/g	ISO 307
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	1.57E+6 (10800)	1.09E+6 (7500)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Break)	23200 (160)	15200 (105)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2/1A/5
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°f (-30°c)	3.8 (8.0)	--	ft·lb/in² (kJ/m²)	
73°f (23°c)	4.8 (10)	7.1 (15)	ft·lb/in² (kJ/m²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°f (-30°c)	27 (56)	--	ft·lb/in² (kJ/m²)	
73°f (23°c)	33 (70)	36 (75)	ft·lb/in² (kJ/m²)	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				
66 Psi (0.45 Mpa), Unannealed	428 (220)	--	°F (°C)	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	408 (209)	--	°F (°C)	ISO 75-2/Af
Vicat Softening Temperature				
--	414 (212)	--	°F (°C)	ISO 306/B50
--	421 (216)	--	°F (°C)	ISO 306/A50
Ball Pressure Test (392°f (200°c))	Pass	--		IEC 60695-10-2

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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
Electric Strength [1]				IEC 60243-1
73°f (23°c), 0.0394 In (1.00 Mm), In Oil	710 (28)	--	V/mil (kV/mm)	
Comparative Tracking Index	475	--	V	IEC 60112
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)	
0.118 In (3.00 Mm), Self-extinguishing	0.0	--	in/min (mm/min)	
Flammability Classification				IEC 60695-11-10, -20
0.030 In (0.75 Mm)	V-0	--		
0.06 In (1.5 Mm)	V-0	--		
0.12 In (3.0 Mm)	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.030 In (0.75 Mm)	1760 (960)	--	°F (°C)	
0.06 In (1.5 Mm)	1760 (960)	--	°F (°C)	
0.12 In (3.0 Mm)	1760 (960)	--	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.030 In (0.75 Mm)	1380 (750)	--	°F (°C)	
0.06 In (1.5 Mm)	1380 (750)	--	°F (°C)	
0.12 In (3.0 Mm)	1380 (750)	--	°F (°C)	
Oxygen Index	35	--	%	ISO 4589-2
Smoke Density				ISO 5659-2
39.4 Mil (1.00 Mm)	280	--		
0.63 In (1.60 Cm)	100	--		
Smoke Toxicity	0.54	--		NF X70-100

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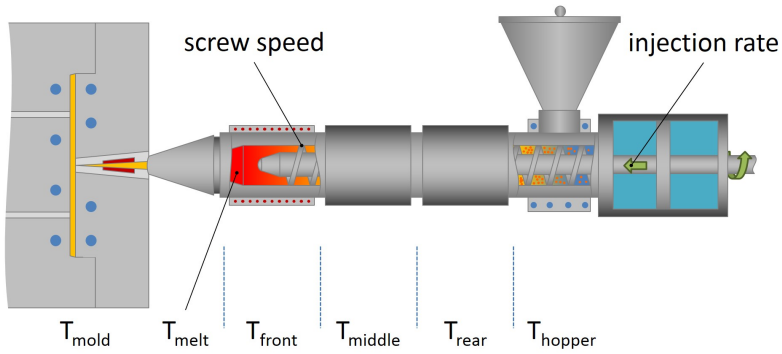

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Processing (Melt) Temp	464 to 500 °F	240 to 260 °C
Mold Temperature	140 to 194 °F	60 to 90 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	290 to 1160 psi	2.00 to 8.00 MPa
Screw Speed	< 591 in/min	< 15 m/min

Notes

[1] 2000 V/sec

Notes

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