

Technical Data Sheet



Schulamid 6 GF 50 H

Polyamide 6
LyondellBasell Industries
Engineering Plastics

Product Description

50% glass fiber reinforced PA 6, high strength and stiffness, heat stabilized

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Heat Stabilized	• High Stiffness	• High Strength
Processing Method	• Injection Molding		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.55	--	g/cm ³	ISO 1183/A
Viscosity Number	145	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	2.32E+6 (16000)	1.38E+6 (9500)	psi (MPa)	ISO 527-1/1A/1
Tensile Stress (Break)	30500 (210)	18900 (130)	psi (MPa)	ISO 527-2/1A/5
Tensile Strain (Break)	2.2	4.5	%	ISO 527-2/1A/5
Flexural Modulus	2.18E+6 (15000)	--	psi (MPa)	ISO 178
Flexural Stress	45000 (310)	--	psi (MPa)	ISO 178
Flexural Strain at Flexural Strength	3.1	--	%	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	4.8 (10)	--	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	7.1 (15)	11 (24)	ft·lb/in ² (kJ/m ²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	43 (90)	43 (90)	ft·lb/in ² (kJ/m ²)	
73°F (23°C)	45 ft·lb/in ² (95 kJ/m ²)	No Break	(kJ/m ²)	
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 358/30)	40600 (280)	--	psi (MPa)	ISO 2039-1
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 psi (0.45 MPa), Unannealed	419 (215)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	401 (205)	--	°F (°C)	ISO 75-2/ Af

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Thermal	Dry	Conditioned	Unit	Test Method
Vicat Softening Temperature				
--	414 (212)	--	°F (°C)	ISO 306/B50
--	421 (216)	--	°F (°C)	ISO 306/A50
Ball Pressure Test (374°F (190°C))	Pass	--		IEC 60695-10-2
RTI Elec				UL 746B
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 746B
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 746B
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)	284 (140)	--	°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·m	IEC 62631-3-1
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	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.06 in (1.5 mm)	1200 (650)	--	°F (°C)	
0.12 in (3.0 mm)	1200 (650)	--	°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 Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Processing (Melt) Temp	482 to 536 °F	250 to 280 °C
Mold Temperature	140 to 212 °F	60 to 100 °C

Notes

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

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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