

Technical Data Sheet

Schulamid 66 GF 25 FR 5 A NAT



Polyamide 66

Product Description

25% glass fibre reinforced flame-retardant Polyamide 66 grade; without PBDE and antimony trioxide

Regulatory Status

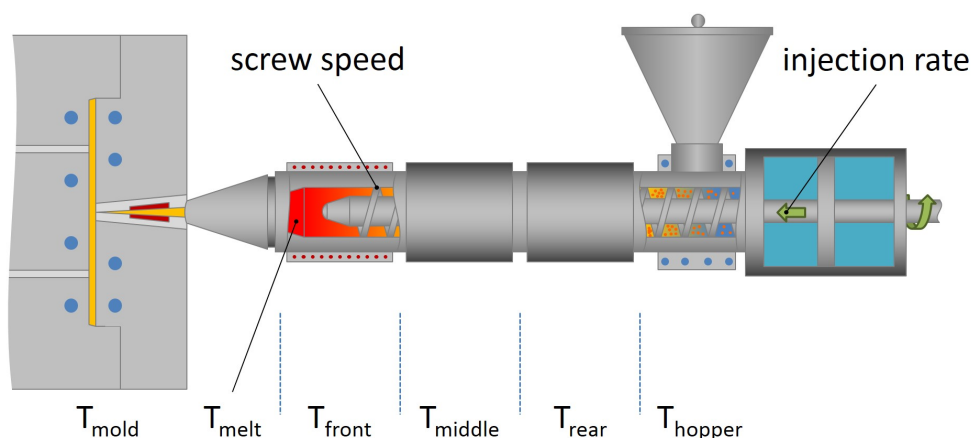
For regulatory compliance information, see *Schulamid 66 GF 25 FR 5 A NAT* [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Africa-Middle East; Asia-Pacific; Europe; Latin America; North America
Processing Method	Injection Molding
Attribute	Antimony Free; Good Electrical Properties; Good Strength
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 25%
Resin ID	PA 66 GF25 FR(16+72)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.59	g/cm ³	ISO 1183
Viscosity Number	170	cm ³ /g	ISO 307
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.2	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	3.0	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	8600	MPa	ISO 178
Tensile Stress at Break			
(Type 1A, 5 mm/min)	125	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	112	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	9800	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	8000	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min, 2.9%)	195	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	12	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	52	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	52	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	55	kJ/m ²	ISO 179
Notched Izod Impact Strength, (23 °C, Type 1, Notch A)	8.5	kJ/m ²	ISO 180
Unnotched Izod Impact Strength, (23 °C, Type 1)	46	kJ/m ²	ISO 180

Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	229 °C		ISO 306
(A (10N), 50 °C/h)	>250 °C		ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	>250 °C		ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	240 °C		ISO 75-2/A
RTI Elec			
(1.5 mm)	130 °C		UL 746B
(3.0 mm)	130 °C		UL 746B
(0.75 mm)	130 °C		UL 746B
(0.50 mm)	130 °C		UL 746B
RTI Imp			
(1.5 mm)	110 °C		UL 746B
(3.0 mm)	110 °C		UL 746B
(0.75 mm)	105 °C		UL 746B
(0.50 mm)	105 °C		UL 746B
RTI Str			
(1.5 mm)	120 °C		UL 746B
(3.0 mm)	120 °C		UL 746B
(0.75 mm)	105 °C		UL 746B
(0.50 mm)	105 °C		UL 746B
Electrical			
Volume Resistivity	2700000000 00000	ohm*m	IEC 62631-3-1
- Conditioned	1800000000 0000	ohm*m	IEC 62631-3-1
Dielectric Strength	28	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	400	V	IEC 60112
High Amp Arc Ignition			UL 746A
Surface Resistivity	4700000000 00000	ohm	IEC 60093
- Conditioned	1400000000 0000	ohm	IEC 60093
Flammable			
Hot-wire Ignition (HWI)			UL 746A
Burning Rate			
(0.750 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(1.50 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(3.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(0.500 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
Glow Wire Flammability Index			
(0.50 mm)	960	°C	IEC 60695-2-12
(0.75 mm)	960	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(0.50 mm)	900	°C	IEC 60695-2-13
(0.75 mm)	900	°C	IEC 60695-2-13
(1.5 mm)	900	°C	IEC 60695-2-13
(3.0 mm)	930	°C	IEC 60695-2-13

Oxygen Index	34 %	ISO 4589-2
UL Information		
Flame Rating		
(1.5 mm)	V-0	UL 94
(1.5 mm)	5VA	UL 94
(3.0 mm)	V-0	UL 94
(3.0 mm)	5VA	UL 94
(0.75 mm)	V-0	UL 94
(0.50 mm)	V-0	UL 94
Flammability Classification		
(0.50 mm)	V-0	IEC 60695-11-10, -20
(0.75 mm)	V-0	IEC 60695-11-10, -20
(1.5 mm)	V-0	IEC 60695-11-10, -20
(1.5 mm)	5VA	IEC 60695-11-10, -20
(3.0 mm)	5VA	IEC 60695-11-10, -20
(3.0 mm)	V-0	IEC 60695-11-10, -20
UL File Number		
(Global)	E344659	
(Global)	E86615	



Injection Parameters	Nominal	
	Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.040 to 0.10	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	270 to 300	°C
Injection Rate	Slow-Moderate	
Back Pressure	20 to 80	bar
Mold Temperature	60 to 90	°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.

Company Information

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

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