

Technical Data Sheet

Schuladur A GF30 FR2 NOM NAT



Polybutylene Terephthalate

Product Description

flame retardant PBT with 30% glass fiber, halogenfree

Regulatory Status

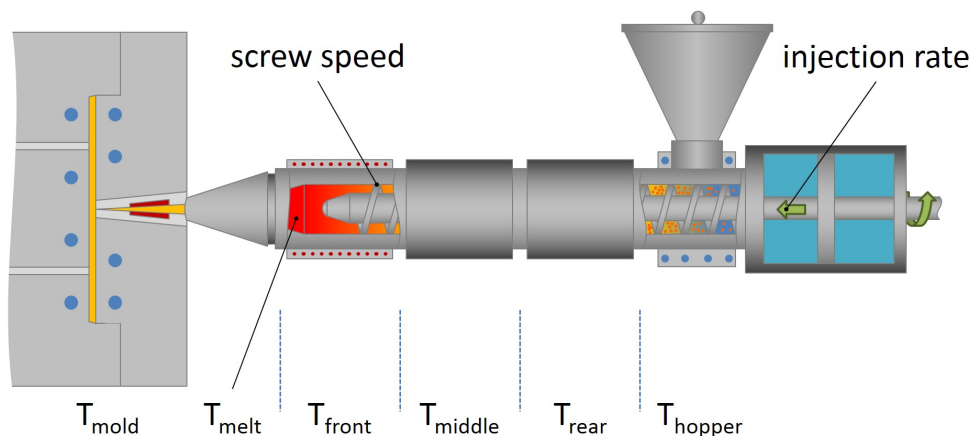
For regulatory compliance information, see *Schuladur A GF30 FR2 NOM NAT* [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Africa-Middle East; Asia-Pacific; Europe; Latin America; North America
Processing Method	Injection Molding
Attribute	Filled; Halogen Free; PFAS free
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	PBT GF30 FR(40)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (250 °C/5.0 kg)	30	cm ³ /10 min	ISO 1133
Density, (Method A)	1.55	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	2.0	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	10900	MPa	ISO 178
Tensile Stress at Break, (Type 1A, 5 mm/min)	115	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	10800	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min, 2.3%)	190	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	8.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	42	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	40	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	203	°C	ISO 306
(A (10N), 50 °C/h)	213	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	218	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	211	°C	ISO 75-2/A

RTI Elec			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
(0.75 mm)	75.0	°C	UL 746B
(2.0 mm)	75.0	°C	UL 746B
(0.50 mm)	75.0	°C	UL 746B
(0.40 mm)	75.0	°C	UL 746B
RTI Imp			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
(0.75 mm)	75.0	°C	UL 746B
(2.0 mm)	75.0	°C	UL 746B
(0.50 mm)	75.0	°C	UL 746B
(0.40 mm)	75.0	°C	UL 746B
RTI Str			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
(0.75 mm)	75.0	°C	UL 746B
(2.0 mm)	75.0	°C	UL 746B
(0.50 mm)	75.0	°C	UL 746B
(0.40 mm)	75.0	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	525	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
(2.00 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)	750	°C	IEC 60695-2-13
(0.75 mm)	775	°C	IEC 60695-2-13
(1.5 mm)	775	°C	IEC 60695-2-13
(3.0 mm)	800	°C	IEC 60695-2-13
Oxygen Index	29	%	ASTM D2863
UL Information			

Flammability Classification		
(0.40 mm)	V-0	IEC 60695-11-10, -20
(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)	5V	IEC 60695-11-10, -20
(2.0 mm)	5V	IEC 60695-11-10, -20
(3.0 mm)	V-0	IEC 60695-11-10, -20
UL File Number	E86615	



Injection Parameters		Nominal Value	Units
Drying Time		2.0 to 4.0	hr
Drying Temperature		120	°C
Suggested Max Moisture		0.02	%
Screw Speed		<250	mm/sec
Processing (Melt) Temp		240 to 270	°C
Injection Rate		Slow-Moderate	
Back Pressure		2.00 to 8.00	MPa
Mold Temperature		70 to 90	°C

Notes

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

Processing notes

Melt contacting surfaces should be made of a high quality, corrosive resistant steel. Positive experiences have been made with steel qualities containing > 12% chromium.

Avoid processing at very barrel high temperatures or above the recommended melt temperature range as this can increase risk of deposit onto the tool surfaces. Avoid long residence times. At start and end of production, it is recommended to purge clean with non-flame retardant polymer or a polyolefin.

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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