

Technical Data Sheet

SchuladurE GF 30 FR 5 NAT



Polyethylene Terephthalate

Product Description

Flame retardant PET reinforced with 30% glass fiber, without PBDE; high CTI

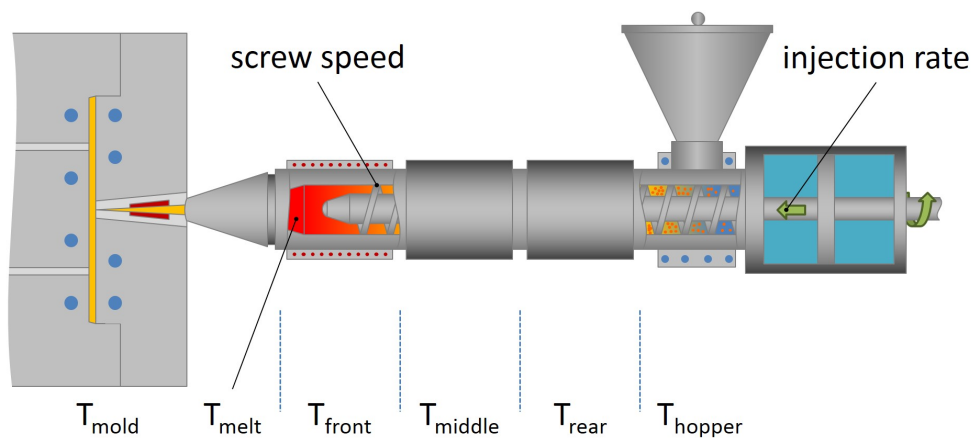
Regulatory Status

For regulatory compliance information, see SchuladurE GF 30 FR 5 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; Filled; Halogenated
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	PET GF30 FR(16)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (280 °C/2.16 kg)	6.0	cm ³ /10 min	ISO 1133
Density, (Method A)	2.00	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	1.7	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	12400	MPa	ISO 178
Tensile Stress at Break, (Type 1A, 5 mm/min)	135	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	12300	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min, 1.7%)	220	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
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	30	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	30	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (200 °C) (IEC 60695-10-2)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	201	°C	ISO 306
(A (10N), 50 °C/h)	237	°C	ISO 306
Deflection Temperature Under Load Annealed (0.45 MPa), (Flatwise)	245	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	221	°C	ISO 75-2/A

RTI Elec			
(3.0 mm)	155	°C	UL 746B
(0.75 mm)	155	°C	UL 746B
RTI Imp			
(3.0 mm)	140	°C	UL 746B
(0.75 mm)	140	°C	UL 746B
RTI Str			
(3.0 mm)	140	°C	UL 746B
(0.75 mm)	140	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	300	V	IEC 60112
High Amp Arc Ignition			UL 746A
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Hot-wire Ignition (HWI)			UL 746A
Burning Rate			
(2.00 mm)	0.0	mm/min	ISO 3795
(2.00 mm)	0.0	mm/min	FMVSS 302
Glow Wire Flammability Index			
(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			
(0.75 mm)	930	°C	IEC 60695-2-13
(1.5 mm)	930	°C	IEC 60695-2-13
(3.0 mm)	960	°C	IEC 60695-2-13
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(1.5 mm)	5VA		UL 94
(3.0 mm)	5VA		UL 94
(3.0 mm)	V-0		UL 94
(0.75 mm)	V-0		UL 94
Flammability Classification			
(0.75 mm)	V-0		IEC 60695-11-10, -20
(1.5 mm)	5VA		IEC 60695-11-10, -20
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	5VA		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	270 to 290	°C
Injection Rate	Slow-Moderate	
Back Pressure	2.00 to 8.00	MPa
Mold Temperature	140 to 150	°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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