

SCHULADUR® A GF 25 HF FR 1

Polybutylene Terephthalate

A. Schulman Europe

Message:

Flame retardent halogenated PBT with 25% glass fiber; without PBDE; high flow

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 25% filler by weight		
Features	High liquidity		
	Halogenated		
	Fill		
	Flame retardancy		
Processing Method	Injection molding		
Resin ID (ISO 1043)	PBT GF25 FR(17)		
Physical	Nominal Value	Unit	Test Method
Density	1.60	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	10.0	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9500	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	120	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.6	%	ISO 527-2/1A/5
Flexural Modulus ¹	8000	MPa	ISO 178
Flexural Stress ²	185	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	6.0	kJ/m ²	ISO 179/1eA
23°C	6.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	40	kJ/m ²	ISO 179/1eU
23°C	50	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	219	°C	ISO 75-2/Bf
1.8 MPa, not annealed	193	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	215	°C	ISO 306/A50
--	201	°C	ISO 306/B50
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2

Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	200	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.800 mm	V-0		IEC 60695-11-10, -20
1.60 mm	V-0		IEC 60695-11-10, -20
3.20 mm	V-0		IEC 60695-11-10, -20
Glow Wire Flammability Index			IEC 60695-2-12
0.750 mm	960	°C	IEC 60695-2-12
1.50 mm	960	°C	IEC 60695-2-12
3.00 mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.750 mm	650	°C	IEC 60695-2-13
1.50 mm	650	°C	IEC 60695-2-13
3.00 mm	650	°C	IEC 60695-2-13

Additional Information

1.)

Not for use in food contact applications2.)

Not for use in medical or pharmaceutical applicationsCharacteristic propertiesSCHULADUR possesses good rigidity, cold impact strength, dimensional stability and high heat deflection temperature.

Injection	Nominal Value	Unit
Drying Temperature	120	°C
Drying Time	2.0 - 4.0	hr
Suggested Max Moisture	0.050	%
Suggested Max Regrind	10	%
Hopper Temperature	70.0	°C
Rear Temperature	230	°C
Middle Temperature	245	°C
Front Temperature	260	°C
Nozzle Temperature	260	°C
Processing (Melt) Temp	250 - 260	°C
Mold Temperature	70.0 - 90.0	°C
Injection Pressure	80.0 - 120	MPa
Injection Rate	Moderate	
Holding Pressure	40.0 - 70.0	MPa
Back Pressure	5.00 - 10.0	MPa
Cushion	2.00 - 5.00	mm
Vent Depth	0.020	mm
Screw Speed	300	mm/sec

Injection instructions

PredryingA dehumidifying dryer has to be used for drying. Unless a drying hopper is in use, material for no more than one hours processing should be placed in the hopper.ReprocessingUp to 20% regrind may be used, in which case use of additional stabilization is recommended as a safety precaution. Use only well dried regrind.Shut downAfter breaks >2 minutes purge with fresh material. For shut down purge with polyolefin. For breaks in production reduce the temperature to 210° C.FinishingSCHULADUR is suitable for machining. Varnishing, printing, gluing and embossing can be carried out using commercially available products after pretreatment. This is often achieved by washing the surface with an organic solvent.It can be laser marked without special Additives. For improved contrast use specific laser printable types.

NOTE	
1.	2.0 mm/min
2.	2.0 mm/min

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