



CELSTRAN® PBT-GF50-08

CELSTRAN® Long Fibre

50% Long Glass Fiber Reinforced PBT

Product information

Resin Identification	PBT-LGF50	ISO 1043
Part Marking Code	>PBT-LGF50<	ISO 11469

Typical mechanical properties

Tensile modulus	16600	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	178	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.4	%	ISO 527-1/-2
Flexural modulus	15900	MPa	ISO 178
Flexural strength	280	MPa	ISO 178
Charpy notched impact strength, 23°C	<u></u>	kJ/m²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]		

[C]: Calculated

Physical/Other properties

Density	1730 kg/m ³	ISO 1183

Injection

Druing Recommended	1/00	
Drying Recommended	yes	
Drying Temperature	120	$^{\circ}C$
Drying Time, Dehumidified Dryer	4	h
Processing Moisture Content	≤0.04	%
Melt Temperature Optimum	250	°C
Min. melt temperature	240	°C
Max. melt temperature	260	°C
Screw tangential speed	0.1 - 0.3	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	130	°C
Ejection temperature	178	°C

Characteristics

Processing Injection Moulding

Delivery form Pellets

Additional information

Injection molding Preprocessing

PBT Drying Requirements: 4 hrs. @ 120° C. A dehumidifier or desiccant dryer is recommended.

Processing

Celstran can be processed on a standard injection molding unit.

Printed: 2025-05-30 Page: 1 of 2

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A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering.

A free flowing check ring assembly is recommended.

Melt Temp.: 280 - 300 ° C. Mold Temp.: 80 - 90 ° C.

Processing Notes

Pre-Drying

CELSTRAN PBT should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be =< -30 °C. The time between drying and processing should be as short as possible

Printed: 2025-05-30 Page: 2 of 2

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