



Product Information

TORZEN™ G5000HSL BK20 PA66 Resin

Product Description

TORZEN™ G5000HSL BK20 is a 50% glass reinforced, heat stabilized, black, PA66 resin suitable for many injection molding applications where high tensile strength and dimensional stability are needed.

Properties (dry)		Value	Units	Method
Physical	Density	1.60	g/cm ³	ISO 1183
	Glass Fiber Content	50	%	ISO 3451/4
	Mold Shrinkage, 2.0 mm, Normal	0.80 – 0.90	%	ISO 294-4
	Mold Shrinkage, 2.0 mm, Parallel	0.20 – 0.30	%	ISO 294-4
	Water Absorption - 24 hours	0.65	%	ISO 62
	Water Absorption - Equilibrium @ 50% RH	1.1	%	ISO 62
	MFR (5.0 kg / 280°C)	2.3	g/10min	ASTM D 1238
Mechanical	Tensile Strength at Break	247	MPa	ISO 527
	Elongation at Break	2.4	%	ISO 527
	Tensile Modulus	16,900	MPa	ISO 527
	Flexural Modulus	16,700	MPa	ISO 178
	Flexural Strength	350	MPa	ISO 178
	Notched Charpy at 23°C	16	kJ/m ²	ISO 179
	Notched Charpy at -40°C	14	kJ/m ²	ISO 179
	Un-Notched Charpy at 23°C	126	kJ/m ²	ISO 179
	Un-Notched Charpy at -30°C	100	kJ/m ²	ISO 179
	Notched Izod at 23°C	13	kJ/m ²	ISO 180
Thermal	Melting Temperature, 10°C/min	262	°C	ISO 11357
	HDT at 0.45 MPa	260	°C	ISO 75
	HDT at 1.82 MPa	255	°C	ISO 75

General Information

Material Status

Commercial: Active

Availability

North America, South America, Europe, Asia

Features

Glass reinforced, heat stabilized, good machine feed and mold release

RoHS

No intentional additives or ingredients used in TORZEN™ G5000HSL BK20 PA66 resin are among those in the European directive 2002/95/EC, (RoHS) as amended.

Process Guidelines for Molding

Drying Temperature	80 °C
Drying Time*	3 - 4 hours
Barrel Temperatures	
Rear	250 - 270 °C
Middle	270 - 290 °C
Front	270 - 290 °C
Nozzle	270 - 290 °C
Processing Temperature (melt)	280 - 300 °C
Mold Temperature	50 - 90 °C
Back Pressure**	2 - 10 bar
Vent Depth	0.007 - 0.04 mm
Cushion (range)	4 - 6 mm
Suggested Moisture (max)	0.18 wt%
Suggested Moisture (min)	0.08 wt%
Screw Speed	Low rpm

* Initial moisture below 0.25 wt%. Use dehumidified air.

** Melt pressure

INVISTA Engineering Polymers

Additional Information:

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