

# TORZEN G5000HSL BK20

## DESCRIPTION

PA66 50% glass fibre reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring very high stiffness and mechanical resistance, along with good heat ageing properties retention.

ISO 1043: PA66-GF50

REGIONAL AVAILABILITY: North America, Europe, Asia Pacific, South and Central America, Near East/Africa

## MATERIAL HANDLING AND PROCESSING

The material is delivered in moisture-proof packaging ready for processing. Maximum recommended water content for best processing is 0.15%. Typical conditions with a desiccant drier: temperature 80 ° C, dew point -20 ° C or below, time 2-4 h or more. Special care must be taken to avoid moisture absorption and contamination with other polymers when adding regrind material. Colour variation and mechanical properties reduction may occur and should always be carefully monitored.

### Injection Molding Processing Parameters

Melt Temperature  
280 - 300°C

Mold Temperature  
80 - 100°C

Injection Speed  
medium-high

## PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet  
Underwriters Laboratories Inc. certified material [www.ul.com](http://www.ul.com)  
ROHS compliant 2011/65/EU and following amendments



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PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>				
Density	ISO 1183	kg/m <sup>3</sup>	1580	
Moulding shrinkage - Parallel / Normal	ISO 294-4	%	0.2 / 0.9	
Water Absorption, 24h immersion at 23°C	ISO 62	%	0.65	
Water Absorption, 24h immersion at 23°C	ISO 62	%	2	
Moisture Absorption 23°C - 50%RH	ISO 62	%	1.1	
<b>MECHANICAL PROPERTIES</b>				
Tensile Modulus	ISO 527-2/1A	MPa	16500	12000
Stress at Break	ISO 527-2/1A	MPa	245	170
Strain at Break	ISO 527-2/1A	%	2.5	3
Flexural Modulus	ISO 178	MPa	15500	11000
Flexural Strength	ISO 178	MPa	380	270
Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	95	105
Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	90	
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	17	22
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	15	
Izod Notched Impact Strength	ISO 180/1A	kJ/m <sup>2</sup>	13	
<b>THERMAL PROPERTIES</b>				
Melting Temperature	ISO 11357-1/-3	°C	260	
Heat Deflection Temperature	ISO 75/2Af	°C	255	
Heat Deflection Temperature	ISO 75/2Bf	°C	260	
<b>FLAMMABILITY PROPERTIES</b>				
Flammability	UL 94	class	HB	
Automotive Interior Flammability	ISO 3795	mm/min	<10	

\*: DAM = Dry As Moulded state according to ISO 16396-2, \*\*: Cond = Conditioned state similar to ISO 1110

