

# BG15E Technical Data Sheet

**Product information:** Glass fiber reinforced PA6 resins

**Product Description:** BG15E is a compound based on Nylon 6 resin containing 15% glass fiber. Performance features of this material include: excellent mechanical properties, dimensional stability, good thermal aging resistance and wear resistant.

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> <li>• High Strength</li> <li>• Thermal Aging Resistance</li> <li>• High Impact strength</li> </ul>	<ul style="list-style-type: none"> <li>• Electronics &amp; Electrical Appliances、Automobile Parts、Sports Equipment、Power Tools、Machinery Parts, ect.</li> </ul>

Properties	Test Method ISO	Test Condition	Units	Typical Values
				BG15E
<b>Physical properties</b>				
Density	ISO 1183		g/cm <sup>3</sup>	1.23
<b>Mechanical properties</b>				
Tensile Strength	ISO 527/2	50mm/min	MPa	115
Elongation at break	ISO 527/2	50mm/min	%	3
Flexural Strength	ISO 178	2mm/min	MPa	170
Flexural Modulus	ISO 178	2mm/min	MPa	4500
Charpy impact strength (notched)	ISO 179/1	4mm, 23 °C	KJ/m <sup>2</sup>	5
Charpy impact strength	ISO 179/1	4mm, 23 °C	KJ/m <sup>2</sup>	40
<b>Thermal properties</b>				
Heat Distortion Temp.	ISO 75	0.45MPa, 4mm	°C	200
		1.82MPa, 4mm	°C	195
Flammability	UL94	1.6mm		HB
<b>Others</b>				
Mold Shrinkage	Jinyoung Method	23 °C	%	0.5-1.0

## Product treatment

BG15E is supplied in moisture-proof packaging and don't need to dry before processing. However, high moisture content is the main factor that affect processing, thus desiccant dryer is recommended for drying at 80 °C if it's needed. The drying time depends on the moisture content. Users can find out more information about safety regulation from Material Safety Data Sheet or by contacting with sales representatives of JINYOUNG.

## Typical characteristics

Melting Temperature: 220-260 °C

Mould Temperature: 70-100 °C

Injection and Holding Pressure: 35-125 bar

## Mould Temperature

Usually, the mould temperature is suggested under 40-90 °C, however, it can be used as low as 10 °C under appropriate circumstances.

## Pressure

Injection pressure determines the filling of products, and screw stroke should not exceed 90% of the maximum stroke. Holding pressure will affect the final products, which can be effectively used to control the sink mark and shrinkage, and the pressure should be applied and maintained if the sprue is not completely frozen.

## Filling Speed

It is suggested to use a fast filling speed to ensure the homogeneity of the melt in the mold cavity and prevent the insufficient filling during solidification.

These values apply only to uncoloured resins. Using colorant or other additives may change some or all of the characteristic properties. The data listed here are within the normal range of product characteristics, neither do these data imply any guarantee of specification setting, nor the design basis of the product for a specific purpose.

## Disclaimer

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