

PA12GF Description

1: PA12GF is a light gray, glass bead-filled polyamide12 powder with excellent rigidity and good elongation at break. It features excellent heat-resistance, dimensional stability and toughness, good insulation, and high corrosion resistance and mechanical strength. Its surface has a granular texture, and the product color is significantly influenced by the material and temperature.

Glass fiber offers higher heat deflection resistance and strength compared to nylon materials, and we recommend using this material for structural validation of product prototypes



Parameters

Heat Deflection Temperature (0.45 M Pa) (GB/T 1040.2-2006): 160°C		
Heat Deflection Temperature (1.8 MPa) (GB/T 1040.2-2006): 85°C		
Melting point: 184°C		
Tensile Strength (GB/T 1040.2): 44 MPa		
Tensile Modulus (GB/T 1040.2): 3500 MPa		
Elongation at Break (GB/T 1040.2):	5%	(An important indicator for evaluating whether the material is suitable for tapping, snap-fit, and other toughness requirements. This material is suitable for 3-5 tapping operations.)
Flexural Strength (GB/T 1040.2):	65 MPa	
Flexural Modulus (GB/T 1040.2):	2400 MPa	
Izod Impact Strength - Notched (GB/T 1843):	4.13 KJ/m ²	(Equivalent to 40 J/m according to ASTM Method D256A, an important indicator for evaluating whether a material is prone to breaking or fracturing. Products made of this material with 4 mm thickness will not fracture when dropped naturally from a height of 70 cm.)
Izod Impact Strength - Unnotched (GB/T 1843):	19.28 KJ/m ²	(Equivalent to 190 J/m according to ASTM Method D256A, an important indicator for evaluating whether a material is prone to breaking or fracturing. Products made of this material with 4 mm thickness will not fracture when dropped naturally from a height of 70 cm.)
Dielectric Constant, 60 Hz: 3.7		

Applications

<ul style="list-style-type: none">• Structural verification of automotive parts and accessories Bumpers, rearview mirrors, dashboards, steering wheels, lights, seats, and handles, etc.
<ul style="list-style-type: none">• Structural verification of household appliances and accessories Air conditioners, air purifiers, garment steamers, electric fans, vacuum cleaners, water dispensers, soymilk makers, juicers, hair dryers, electric toothbrushes, etc.
<ul style="list-style-type: none">• Structural verification of electromechanical equipment and products Industrial display panels, cameras, laboratory apparatus, power tools, sockets, electrical meters, measuring tools, switches, etc.