EOS PA 3200 GF

Polyamide 12

EOS GmbH

Message:

PA 3200 GF is a whitish, glass-filled polyamide 12 powder, which is characterised by an excellent stiffness in combination with good elongation at break. Laser-sintered parts made from PA 3200 GF possess excellent material properties:
high stiffness
high mechanical wear-resistance
good thermal loadability
excellent surface quality
high dimensional accuracy and detail resolution
good processability
excellent long-term constant behaviour
A typical application for PA 3200 GF is the usage e.g. for final parts within the engine area of cars, for deep-drawing dies or any other application which requires particular stiffness, high heat distortion temperature and low abrasive wear.

General Information			
Filler / Reinforcement	Glass Bead		
Features	Filled Good Processability Good Wear Resistance High Elongation High Heat Resistance High Stiffness Low Friction Outstanding Surface Finish		
Uses	Automotive Applications Automotive Under the Hood Engineering Parts		
Appearance	White		
Forms	Powder		
Processing Method	3D Printing, Laser Sintering/Melting		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.22	g/cm³	Internal Method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore D, 15 sec)	80		ISO 868
Ball Indentation Hardness	98.0	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	2500	MPa	ISO 527-2
-- [2]	3200	MPa	ISO 527-2

Tensile Stress			
-- [3]	47.0	MPa	ISO 527-2
-- [4]	51.0	MPa	ISO 527-2
Tensile Strain			
Break [5]	5.5	%	ISO 527-2
Break [6]	9.0	%	ISO 527-2
Flexural Modulus [7] (23°C)	2900	MPa	ISO 178
Flexural Stress [8]	73.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [9] (23°C)	5.4	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength [10] (23°C)	35	kJ/m^2	ISO 179/1eU
Notched Izod Impact Strength (23°C)	4.2	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	21	kJ/m^2	ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature [11]			
0.45 MPa, Unannealed	157	°C	ISO 75-2/B
1.8 MPa, Unannealed	96.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	179	°C	ISO 306/A50
--	166	°C	ISO 306/B50
Melting Temperature [12]	176	°C	ISO 11357

NOTE	
1.	Z Direction
2.	X Direction
3.	Z Direction
4.	Y Direction
5.	Z Direction
6.	Y Direction
7.	X Direction
8.	X Direction
9.	X Direction
10.	X Direction
11.	X Direction
12.	20°C/min

Recommended distributors for this material

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