



TECHNICAL DATASHEET

Roboze Glass PA

Glass PA is a glass spheres filled polyamide, which presents improved mechanical properties and minor moisture absorption compared to standard polyamides, ensuring high dimensional stability. It is also best suited for applications requiring high stiffness, low abrasive wear or good electric insulation.

Filament Product Specification

	MECHANICAL PROPERTIES	Test Method	English		Metric		Infill Density
			XZ	XY	XZ	XY	
Tensile	Tensile strength ultimate	ISO 572	12618 psi	12328 psi	87 MPa	85 MPa	100%
	Tensile modulus	ASTM D638	609 ksi	594 ksi	4.2 GPa	4.1 GPa	
	Tensile elongation at break (%)	ASTM D638	2.7%	2.5%	2.7%	2.5%	
Impact	Charpy impact strength notched (23 °C)	ISO 179 IeU	12.35 ft*lb/in ²	-	26 kJ/m ²	-	

THERMAL PROPERTIES	Test Method	English	Metric
HDT @ 263 psi - 1.82MPa	ASTM D648	194 °F	90 °C
Continuous Use Temperature	IEC 60216	248 °F	120 °C

OTHERS	Test Method	Value	
		English	Metric
Density	ISO 1183	0.040 lb/in ³	1.13 g/cm ³
Water absorption	ISO 62	302 °F	150 °C
Surface Resistivity	DIN/IEC 60093	≤ 10 ¹² Ω	
Insulation resistance strip electrode	DIN/IEC 60167	≤ 10 ¹¹ Ω * in	≤ 10 ¹² Ω * cm



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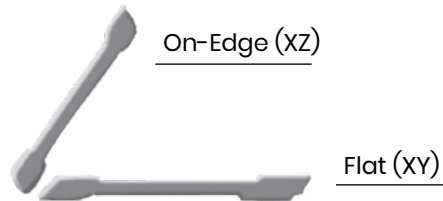
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TEST SPECIMENT SETTING FOR MECHANICAL TESTING

All tests have been made with printed sample in two different orientations on EDGE (XZ) and FLAT (XY).

H.D.T. is the acronym of Heat Deflection Temperature. The international standard norm ASTM D648 provide the terms to determinate the operating temperature of polymers. Test method need a sample, with standard dimension, subject a load of 65.9 psi (455 kPa) and 263,93 psi (1,82 MPa), after that starts to heat with increase steps of 2°, when the sample arrive an inflection of 1 inch (0.25 mm), is determinate the h.d.t

XZ= X or "on edge"
XY= Y or "flat"



The performance characteristics of these materials may vary according to application, end use, or operating conditions. Each user is responsible for determining that the Roboze material is safe, technically suitable, and lawful for the intended application, as well as for identifying the proper disposal (or recycling) method consistent with applicable environmental laws and regulations.

The information presented in this document are typical values intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values will vary with build conditions. Tested parts were built on ROBOZE PLUS 400. Product specifications are subject to change without notice.

Your Smart Solution

Roboze machines are designed to optimize time, reduce costs, and speed up time to market. Our high performing materials are engineered to empower you with unlimited possibilities for all kinds of projects.

The Only Beltless System

Roboze Beltless technology is years ahead in innovation. The patented mechatronic movement system of the X and Y-axes, which directly connects rack and pinion, achieves never before seen real 25-micron layer tolerances.

Find our more on advanced Roboze solutions at roboze.com and get in touch with our experts.

See It To Believe It

Request a sample and see for yourself what you can create with our technology and super techno-polymers.

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