

## Roboze Strong (ABS 100%)

ABS is a thermoplastic material for special production of functional parts

## FILAMENT PRODUCT SPECIFICATION

STRONG is a high quality surface material with good mechanical properties developed for Roboze based on ABS (acrylonitrile butadiene styrene), it does not smell.

• It meets the physical property requirements of your application, providing excellent reproduction of mould surfaces. It is perfect for specialised finish requirements through painting or plating.

• It is possible to use a variety of secondary finishing technique

• STRONG can be used for following applications:

• Consumer goods, toys, telephones parts, electrical and computer equipment, automotive in internal and external parts, home appliances.

	MECHANICAL	Test Method	Build Orientation		Infill density
	PROPERTIES		xz	ху	in the density
TENSILE	Tensile Strength Ultimate	ASTM D638	40 MPa	38 MPa	100%
	Tensile Modulus	ASTM D638	2.8 GPa	2.6 GPa	
	Tensile Elongation at Break	ASTM D638	2,6%	2,2%	
FLEXURAL	Flexural Strength	ASTM D790	-	45 MPa	100%
	Flexural Modulus	ASTM D790	-	2.6 GPa	10070

THERMAL PROPERTIES	Test Method	Value
Vicat softening temp [°C]	ISO 306	90°C
Heat Deflection Temp. (HDT) 1.82 MPa	ASTM D648	70°C

OTHERS	Test Method	Value
Density	ASTM D792	1,04 g/cm3
Water Absorption	ISO 62	1,1 %



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On-Edge (XZ)

Flat (XY)

#### 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 acronyms 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 455 kPa and 1,82 MPa, after that starts to heat with increase steps of 2°, when the sample arrive an inflection of 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 free sample and see for yourself what you can create with our technology and super techno-polymers. **info@roboze** 

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