



# Roboze Carbon Peek

Carbon PEEK is a PEEK Carbon Fiber reinforced for the production of functional parts

## FILAMENT PRODUCT SPECIFICATION

Roboze CARBON PEEK adds extra thermal stability and stiffness to our already know PEEK. The addition of specially selected Carbon Fibers improve mechanical properties of the material and increase its HDT maintaining its properties even at a higher temperature than neat PEEK.

Roboze Carbon PEEK is compliant with the ECSS-Q-ST-70-02C thermal vacuum outgassing test for the screening of space materials standard. This standard describes a thermal vacuum test to determine the outgassing screening properties of materials proposed for use in the fabrication of spacecraft and associated equipment, for vacuum facilities used for flight hardware tests and for certain launcher hardware.

	MECHANICAL PROPERTIES	Test Method	Build Orientation		Infill density
			xz	xy	
TENSILE	Tensile Strength Ultimate	ASTM D638	120 MPa	115 MPa	100%
	Tensile Modulus	ASTM D638	13.8 GPa	14 GPa	

FLEXURAL

Waiting for ISO 178 test results

THERMAL PROPERTIES	Test Method	Value
HDT (load 1.82MPa)	ISO75	280°C
Continuous Use Temp.	UL 746B	250°C
Maximum (short term) Use Temp.	UL 746A	280°C

OTHERS	Test Method	Value
Specific Gravity	ISO 1183	1,36 g/cm3
Water Absorption	ISO 62	< 0,1%
Surface Resistance	DIN IEC 60093	< 10 <sup>9</sup> Ω



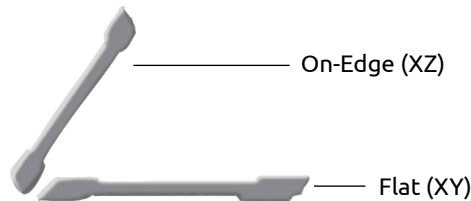
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## TEST SPECIMENT SETTING FOR MECHANICAL TESTING

All tests have been made with printed sample in two different orientations: flat and on edge.

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.

**info@roboze**

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