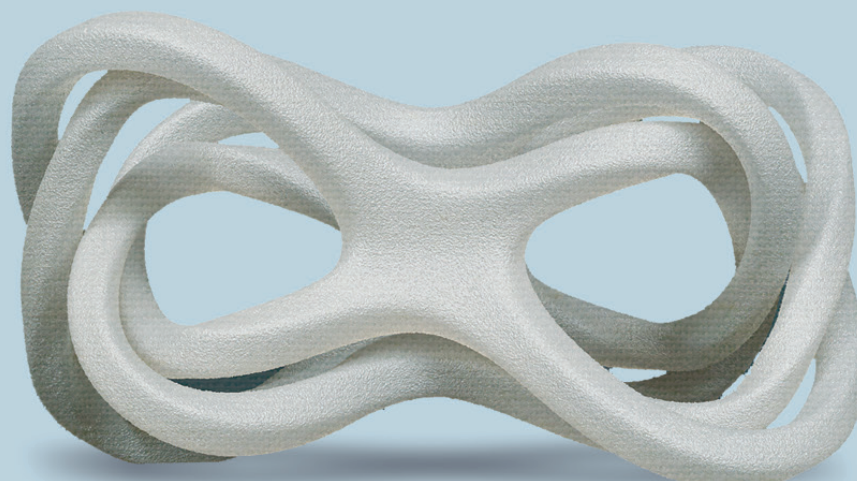




## KIMYA **PEKK** CARBON



**PEKK CARBON FILAMENT** is easier to print than PEI or PEEK. It is designed for high technical applications

| **HEAT RESISTANCE (150°)** | **ABRASION RESISTANCE**  
| **CHEMICAL RESISTANCE** | **FLAME RETARDANT UL94 V0**

### FILAMENT PROPERTIES

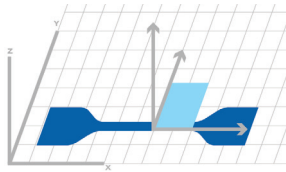
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183-1	g/cm <sup>3</sup>	1.27
Moisture rate	INS-6711	%	< 1
Glass transition temperature Tg	ISO 11357-1	°C	160

## PRINT PARAMETERS AND SPECIMENS DIMENSIONS

<b>PRINTING DIRECTION</b>	XY
<b>PRINTING SPEED</b>	20-40 mm/s
<b>INFILL</b>	100% - rectilinear
<b>INFILL ANGLE</b>	45°/-45°
<b>EXTRUSION TEMPERATURE</b>	370-380°C
<b>BED TEMPERATURE</b>	150°C
<b>CHAMBER TEMPERATURE</b>	80°C

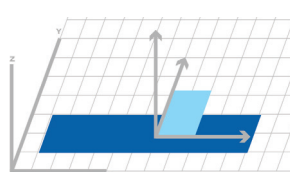
## RESULTS

### TENSILE TEST



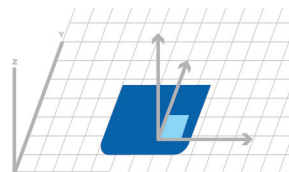
Dim.(mm): 75x12.5x2  
Specimen type: ISO 527-5A

### BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

### HARDNESS



Dim.(mm): 45x45x4

## PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
<b>THERMAL PROPERTIES</b>	Max T ° of use	-	°C	150
<b>ELECTRICAL PROPERTIES</b>	Dielectric constant	IEC 60243-1	KV/mm	84
	Surface resistivity	ASTM D257	Ohms/m <sup>2</sup>	10 <sup>16</sup>
<b>TENSILE</b>	Tensile modulus	ISO 527-2/5A/50	MPa	2900
	Strength	ISO 527-2/5A/50	MPa	39,1
	Strain at Strength	ISO 527-2/5A/50	%	3,2
<b>BENDING TEST</b>	Flexural modulus	ISO 178	MPa	2924
	Flexural strength	ISO 178	MPa	85,9
<b>CHARPY IMPACT</b>	Charpy impact resistance	ISO 179-1/1eA	kJ/m <sup>2</sup>	5,6

## CHEMICAL RESISTANCE

<b>EXCELLENT</b>	<b>Unattacked material and few or no absorptio</b> acids, alcohols , alkyds, ketones, bases, esters, ethers, halogens, hydrocarbons
<b>NOT RECOMMENDED</b>	Nitric acid, sulfuric acid, methylene chloride