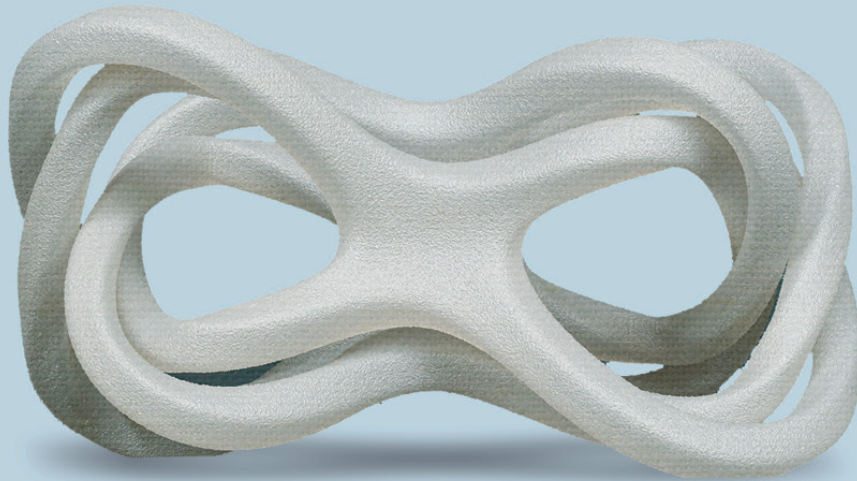




KIMYA PEKK CARBON



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

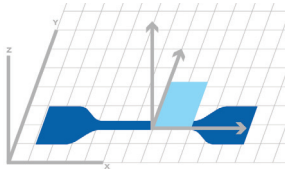
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183-1	g/cm ³	1.27
Moisture rate	INS-6711	%	< 1
Glass transition temperature Tg	ISO 11357-1	°C	160

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

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

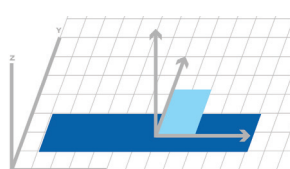
RESULTS

TENSILE TEST



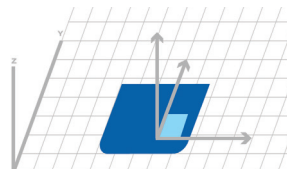
Dim.(mm): 75x12.5x2
Specimen type: ISO 527-5A

BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

HARDNESS



Dim.(mm): 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
THERMAL	Max T ° of use	-	°C	150
ELECTRICAL PROPERTIES	Dielectric constant	IEC 60243-1	KV/mm	84
	Surface resistivity	ASTM D257	Ohms/m ²	10 ¹⁶
TENSILE	Tensile modulus	ISO 527-2/5A/50	MPa	2,900
	Tensile strength	ISO 527-2/5A/50	MPa	39,1
	Tensile strain at strength	ISO 527-2/5A/50	%	3,2
BENDING TEST	Flexural modulus	ISO 178	MPa	2,924
	Flexural strength	ISO 178	MPa	85,9

CHEMICAL RESISTANCE

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