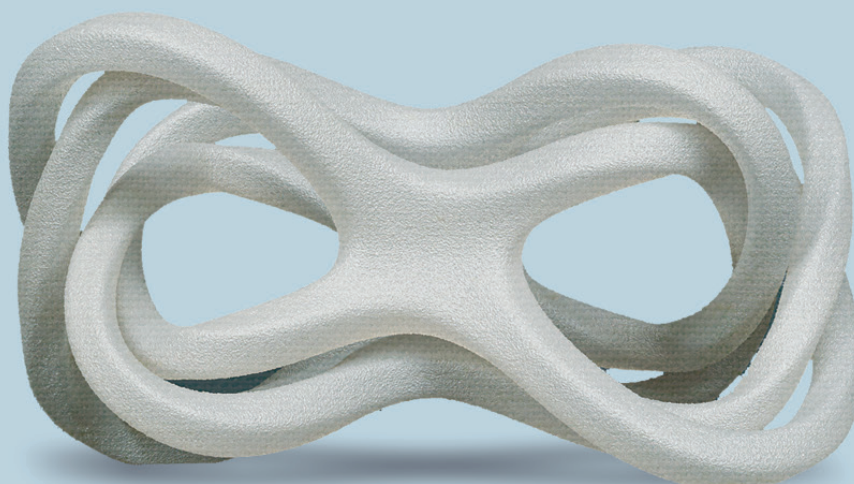




KIMYA PEKK-SC



Thanks to its semi crystalline structure, PEKK-SC combines excellent mechanical properties and very good thermal , fire and chemical resistances.

| SEMI CRYSTALLINE STRUCTURE | EXCELLENT MECHANICAL PROPERTIES

| THERMAL RESISTANCE (UP TO 260°C) | FIRE RESISTANCE

FILAMENT PROPERTIES @23°C

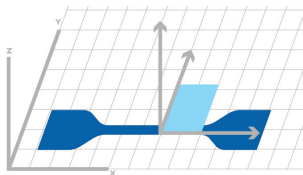
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1,75 +/- 0,1 2,85 ± 0,1
Density	ISO 1183-1	g/cm3	1,27
Moisture rate	INS-6711	%	<1
Melt Flow Index (MFI)	ISO 1133-1 (380°C - 5 kg)	g/10min	35
Glass transition temperature (Tg)	ISO 11357-1 (10°C/min - 20-420°C)	°C	161
Melting temperature (Tm)	ISO 11357-1 (10°C/min - 20-420°C)	°C	332
Heat deflection temperature HDT (1,8 Mpa)	ISO 75f	°C	172

PRINTED SPECIMENS PROPERTIES

PRINTING DIRECTION	Upright (ZX)	On edge (XZ)
PRINTING SPEED	45 mm/s	45 mm/s
INFILL	100%	100%
INFILL ANGLE	45°C/-45°C	-
NOZZLE TEMPERATURE	360°C	360°C
BED TEMPERATURE	95°C	95°C

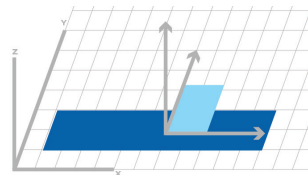
RESULTS

TENSILE TEST



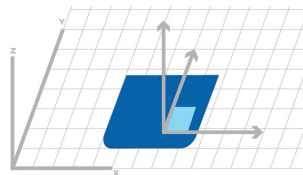
Dim.(mm) : 75x12,5x2

BENDING TEST - CHARPY IMPACT

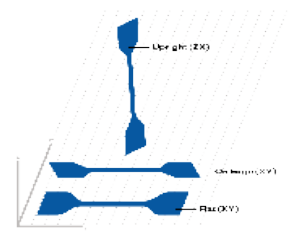


Dim. (mm) : 80x10x4

HARDNESS



Dim.(mm) : 45x45x4



PRINTED SPECIMENS PROPERTIES @23°C - UNANNEALED PARTS

	PROPERTIES	TEST METHODS	UNITS	VALUES UPRIGHT (ZX)	VALUES ON EDGE (XZ)
ELECTRICAL PROPERTIES	Dielectrical strength	IEC 60253-1 (100 M)	kV/mm	84	-
	Relative permittivity	IEC 60250 (1 MHZ)	-	2,6	-
	Loss tangent (tan)	IEC 60250 (1 KHZ)	-	0,007	-
	Volume Resistivity	ASTM D257	Ohms/cm	10 ¹⁶	-
	Surface Resistivity	ASTM D257	Ohms/m ²	10 ¹⁶	-
	Tensile Modulus	ISO 527-2/1A/50	MPa	2,784	2,448
	Tensile strength	ISO 527-2/1A/50	MPa	32,4	64,1
	Tensile strain at strength	ISO 527-2/1A/50	%	1,4	4,5
	Tensile stress at break	ISO 527-2/1A/50	MPa	32,4	64,1
	Tensile strain at break	ISO 527-2/1A/50	%	1,4	4,5
MECHANICAL PROPERTIES	Flexural modulus	ISO 178	MPa	1705	1918
	Flexural stress @conventionnal deflection (3,5% strain)**	ISO 178	MPa	61,6	79,3
	Flexural strength	ISO 178	MPa	62,9	-
	Flexural stress at break	ISO 178	MPa	62,9	-
	Flexural strain at break	ISO 178	%	3,8	-
	Charpy impact resistance	ISO 179-1/1EA	kJ/m2	1,9	5,35

*According to ISO 178, end of the test at 5% deformation even if there is no specimen break.

**The data should be considered as indicative values - Properties can be influenced by production conditions.

CERTIFICATION

FIRE/SMOKE STANDARDS

COMPLIANT WITH: UL94 V0 @0,8MM - EN45545 HL3 : R22 R23 - FAR 25,853