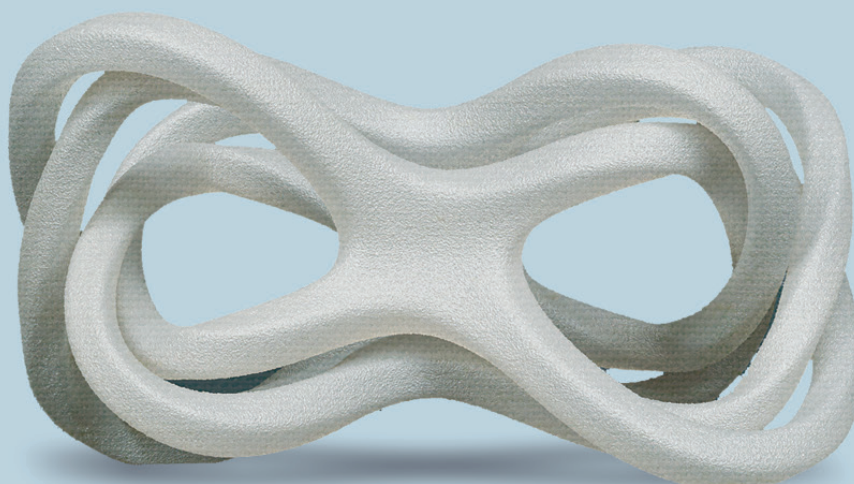




KIMYA PEKK-A



The PEKK-A filament is intended for technical applications requiring a high resistance to temperature.

KEPSTAN
BY ARKEMA

| HEAT RESISTANCE | ABRASION RESISTANCE

| CHEMICAL RESISTANCE | FLAME RETARDANT - UL94 V0 COMPLIANT

FILAMENT PROPERTIES

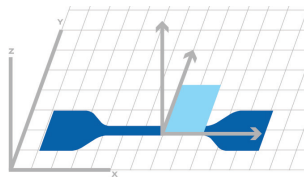
PROPERTIES	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1,75 ± 0,1
Density	ISO 1183-1	g/cm ³	1,261
Moisture rate	INS-6711	%	< 1
Melt Flow Index (MFI)(@380°C – 5 kg)	ISO 1133-1	g/10min	37 - 47
Glass transition temperature (Tg)	ISO 11357-1 DSC (10°C/min – 20-410°C)	°C	159
Melting Temperature (Tm)	ISO 11357-1 DSC (10°C/min – 20-410°C)	°C	308
Heat distortion temperature (HDT) (1.8 MPa)	ISO 75f	°C	172

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	110-125°C
CHAMBER TEMPERATURE	60-80°C

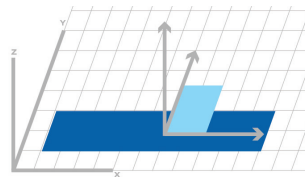
RESULTS

TENSILE TEST



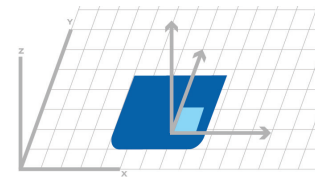
Dim.(mm) : 75x12.5x2
Éprouvette de type ISO 527-5A

BENDING TEST – CHARPY IMPACT



Dim. (mm) : 80x10x4

HARDNESS



Dim.(mm) : 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES WITHOUT ANNEALING
MECHANICAL PROPERTIES	Maximum temperature usage	-	°C	150
	Thermal conductivity	ASTM E1530-11	W/mK	0,21
	Dielectric strength	IEC 60243-1	KV/mm	84
	Surface resistivity	ASTM D257	Ohms/m ²	10 ¹⁶
	Tensile modulus	ISO 527-2/5A/50	MPa	2,510
	Tensile strength	ISO 527-2/5A/50	MPa	65
	Tensile strain at strength	ISO 527-2/5A/50	%	5
	Tensile stress at break	ISO 527-2/5A/50	%	48
	Tensile strain at break	ISO 527-2/5A/50	%	>5
	Total Mass Loss (TML)	ASTM E 595	%	0,27
	Collected Volatile Condensable Material (CVCM)	ASTM E 595	%	< 0,01
	Water Vapor Recovered (WVR)	ASTM E 595	%	0,29
	Flexural modulus	ISO 178	MPa	1,660
	Flexural stress at conventionnal deflection (3,5% strain)**	ISO 178	MPa	63,2
	Flexural strain at flexural strength	ISO 178	%	> 5*
	Charpy impact resistance	ISO 179-1/1eA	kJ/m ²	2,5

*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

FLAME RETARDANT	UL 94 V0 COMPLIANT
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