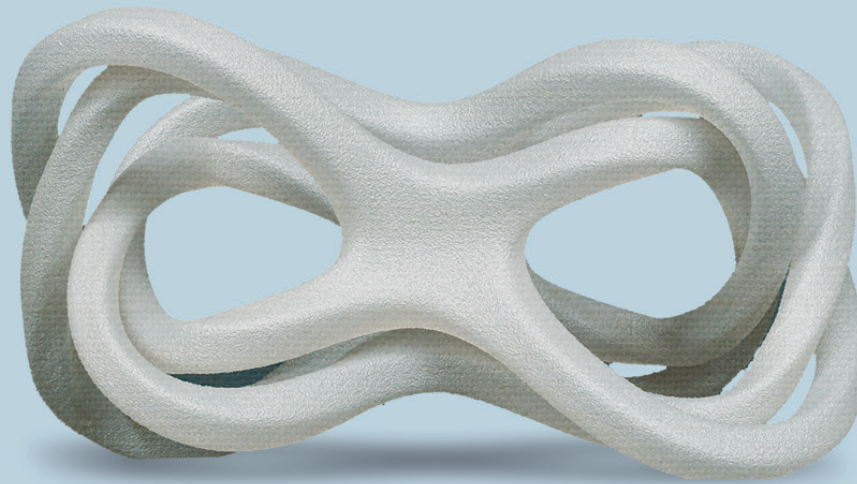




PEKK-A KIMYA



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

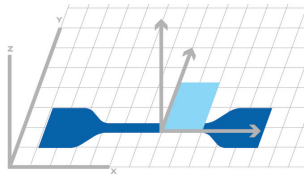
PROPERTIES	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1
Density	ISO 1183-1	g/cm ³	1.261
Moisture rate	INS-6711	%	< 1
Melt Flow Index (MFI)(@380°C – 5 kg)	ISO 1133-1	g/10min	37 - 47
Glass transition temperature Tg	ISO 11357-1 DSC (10°C/min - 20-410°C)	°C	159
Melting Temperature Tm	ISO 11357-1 DSC (10°C/min - 20-410°C)	°C	308
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

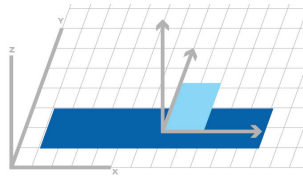
RESULTS

TENSILE TEST



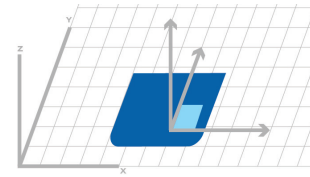
Dim.(mm) : 75x12.5x2
Éprouvette de type ISO 527-5A

BENDING TEST – CHARPY IMPACT



Dim. (mm) : 80x10x4

HARDNESS



Dim.(mm) : 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES WITHOUT ANNEALING	VALUES WITH ANNEALING
THERMAL PROPERTIES	Maximum use T°	-	°C	149	-
	Thermal conductivity	ASTM E1530-11	W/mK	0.21	-
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	2,510	2,990
	Strength	ISO 527-2/5A/50	MPa	65	46.7
	Strain at Strength	ISO 527-2/5A/50	%	5	2.3
	Stress at break	ISO 527-2/5A/50	%	48	46.7
	Strain at break	ISO 527-2/5A/50	%	>5	2.3
OUTGASSING	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	-
BENDING TEST	Flexural modulus	ISO 178	MPa	1,660	2,120
	Flexural stress at conventional deflection (3,5% strain)	ISO 178	MPa	63.2	89.8
	Flexural strength	ISO 178	MPa	-	94.9
	Flexural strain at flexural strength	ISO 178	%	> 5	4.3
	Charpy impact resistance	ISO 179-1/1eA	kJ/m ²	2.5	1.9

CERTIFICATION

FLAME RETARDANT	UL 94 V0 COMPLIANT
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