



Kimya PEKK-A 3D Filament

The PEKK-A filament made from Arkema's KEPSTAN® is intended for technical applications requiring high resistance to temperature (up to 150 ° C).

- HEAT RESISTANCE
- ABRASION RESISTANCE
- CHEMICAL RESISTANCE
- FLAME RETARDANT - UL94 V0

Kimya's 2-year warranty.

FILAMENT PROPERTIES

PROPERTIES	TEST METHODS	VALUES
Diameter	INS-6712	1,75 ± 0,1 mm 2,85 ± 0,1 mm
Density	ISO 1183-1	1,261 g/cm ³
Moisture rate	INS-6711	< 1 %
Melt flow index (MFI)	ISO 1133-1 (@380°C – 5 kg)	37 - 47 g/10min
Glass transition temperature (T_g)	ISO 11357-1 DSC (10°C/min - 20-410°C)	159 °C
Heat distortion temperature (HDT) (1.8 MPa)	ISO 75f	172°C
Melting Temperature (T_m)	ISO 11357-1 DSC (10°C/min – 20-410°C)	308 °C

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
Printing Speed	20-40 mm/s
Infill	100% - rectilinear
Infill Angle	45°/-45°
Nozzle Temperature	370-380°C
Bed T°	110-125°C
Chamber T°	60-80°C

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	VALUES
THERMAL PROPERTIES	Maximum use T°	-	150 °C
	Thermal conductivity	ASTM E1530-11	0,21 W/mK
ELECTRICAL PROPERTIES	Dielectric constant	IEC 60243-1 (100µm)	84 KV/mm
	Surface resistivity	ASTM D257	10 ¹⁶ Ohms/m ²
OUTGASSING	Total Mass Loss (TML)	ASTM E 595	0,27 %
	Collected Volatile Condensable Material (CVCM)	ASTM E 595	0 0.01 %
	Water Vapor Recovered (WVR)	ASTM E 595	0,29 %
MECHANICAL PROPERTIES	Tensile modulus	ISO 527-2/5A/50	2 510 MPa
	Tensile Strength	ISO 527-2/5A/50	65 MPa
	Tensile strain at strength	ISO 527-2/1A/50	5 %
	Tensile Stress at Break	ISO 527-2/5A/50	48 MPa
	Tensile strain at break	ISO 527-2/5A/50	>5 %
	Flexural modulus	ISO 178	1 660 MPa
	Flexural stress at conventional deflection (3,5% strain)*	ISO 178	63,2 MPa
	Flexural strain at flexural strength	ISO 178	>5 %
	Charpy impact resistance	ISO 179-1/1eA	2.5 kJ/m ²
Note 1	*Fin de l'essai à 5% d'allongement d'après la norme ISO 178 même si l'éprouvette ne rompt pas.		
Note 2	Les données doivent être considérées comme des valeurs indicatives - Les propriétés peuvent être influencées par les conditions de production.		

Created on 11/09/2018 - Revised on 25/11/2019.