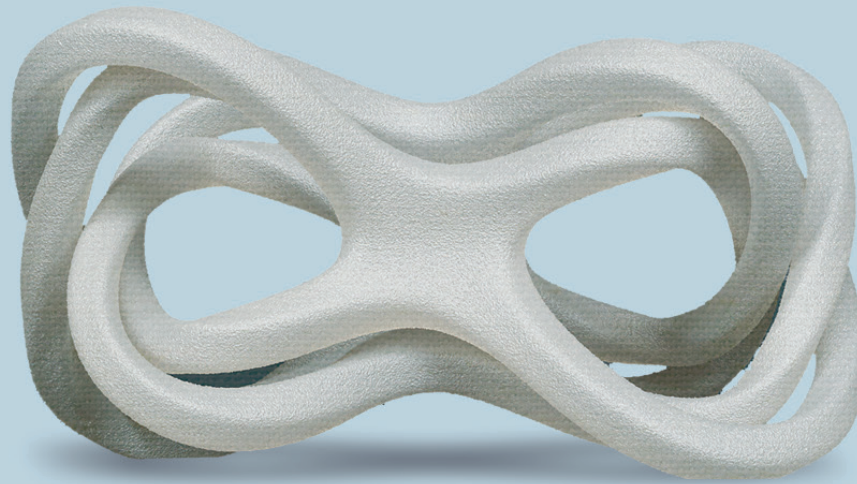




ABS KEVLAR KIMYA



ABS KEVLAR has been designed for 3D printing by a precise formulation of aramid fibers into ABS materials

| **NO SHRINKAGE** | **LOW WARPING**

| **SMOOTH SURFACE** | **LIGHT WEIGHT OBJECTS**

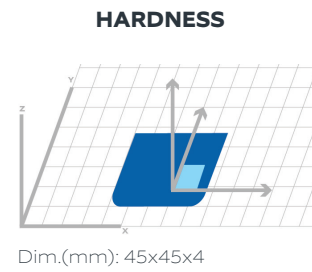
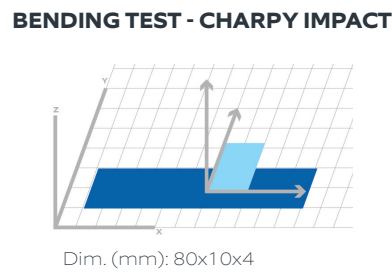
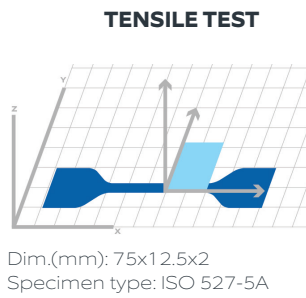
FILAMENT PROPERTIES

DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183-1	g/cm ³	1.037
Moisture rate	INS-6711	%	< 10,000
Melt Flow Index (MFI)	ISO 1133-1	g/10min	14.8
Glass transition temperature T _g	ISO 11357-1 DSC (10°C/min – 20 à 220°C)	°C	100
Melting temperature T _m	ISO 11357-1 DSC (10°C/min – 20 à 220°C)	°C	n/a

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	50 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	260°C
BED TEMPERATURE	100°C

RESULTS



PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
TENSILE TEST	Tensile modulus	ISO 527-2/5A/50	MPa	1,775
	Strength	ISO 527-2/5A/50	MPa	31.1
	Strain at Strength	ISO 527-2/5A/50	%	2.3
	Stress at break	ISO 527-2/5A/50	MPa	27.7
	Strain at break	ISO 527-2/5A/50	%	4.9
BENDING TEST	Flexural modulus	ISO 178	MPa	1,509
	Flexural stress at conventionnal deflection (3,5% strain)	ISO 178	MPa	44.7
	Flexural strain at flexural strength	ISO 178	%	>5*
CHARPY IMPACT	Charpy impact resistance	ISO 179-1/1eA	kJ/m ²	8.86
HARDNESS	Shore Hardness	ISO 868	Shore D	65.2

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