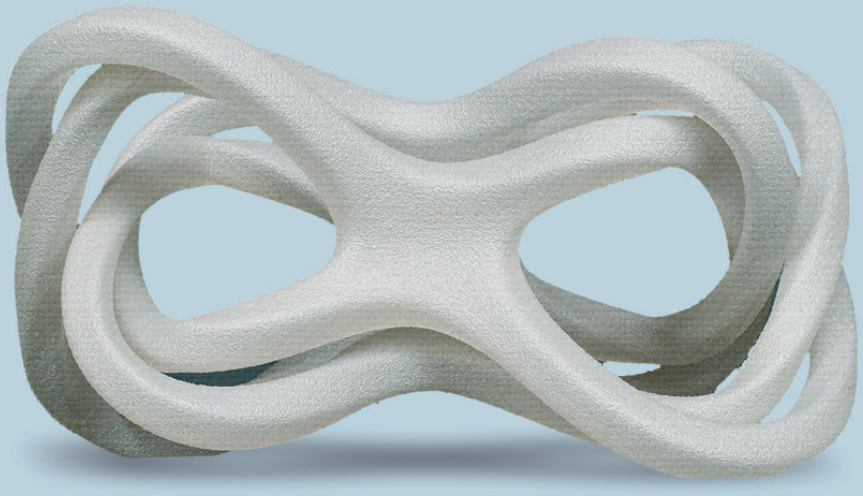
KIMYA **ABS**-EC



The electrically conductive **ABS** based **filament from Kimya.**

ELECTRICAL CONDUCTOR (SURFACE RESISTIVITY <10^6 R OHMS/SQ) |
BETTER TEMPERATURE RESISTANCE THAN PLA (90°C) |
IMPACT RESISTANCE

FILAMENT PROPERTIES

DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1,75 +/- 0,1 2,85 +/- 0,1
Density	ISO 1183	g/cm3	1,035
Moisture rate	INS-6711	%	<0,5
Melt Flow Index (MFI) (@280°C – 10 kg)	ISO 1133	g/10min	8-16
Glass transition temperature (Tg)	ISO 11357 DSC (10°C/min – 20 à 300°C)	°C	108

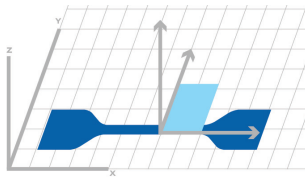
KIMYA
Additive Manufacturing by ARMOR

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	45 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	260°C
BED TEMPERATURE	95°C

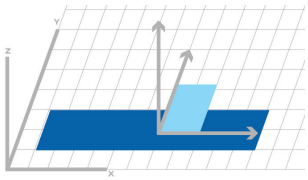
RESULTS

TENSILE TEST



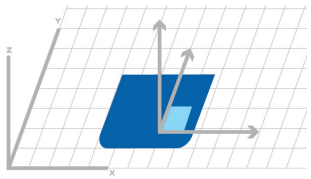
Dim.(mm): 75x12.5x2
Specimen type: ISO 527-5A

BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

HARDNESS



Dim.(mm): 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
MECHANICAL PROPERTIES	Tensile modulus	ISO 527-2/5A/50	MPa	2,398
	Tensile strength	ISO 527-2/5A/50	MPa	36,7
	Tensile strain at strength	ISO 527-2/5A/50	%	2,3
	Tensile stress at break	ISO 527-2/5A/50	MPa	29,2
	Tensile strain at break	ISO 527-2/5A/50	%	5,2
	Flexural modulus	ISO 178	MPa	1393
	Flexural stress at conventional deflection (3,5% strain)**	ISO 178	MPa	49,3
	Flexural strain at break	ISO 178	%	>5*
	Charpy impact resistance	ISO 179-1/1eA	kJ/m^2	27,6
	Shore Hardness	ISO 868	Shore D	67,2
	Surface resistivity	ATSM D257	ohms/sq	$<10^6$

*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.

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La FRENCH FAB