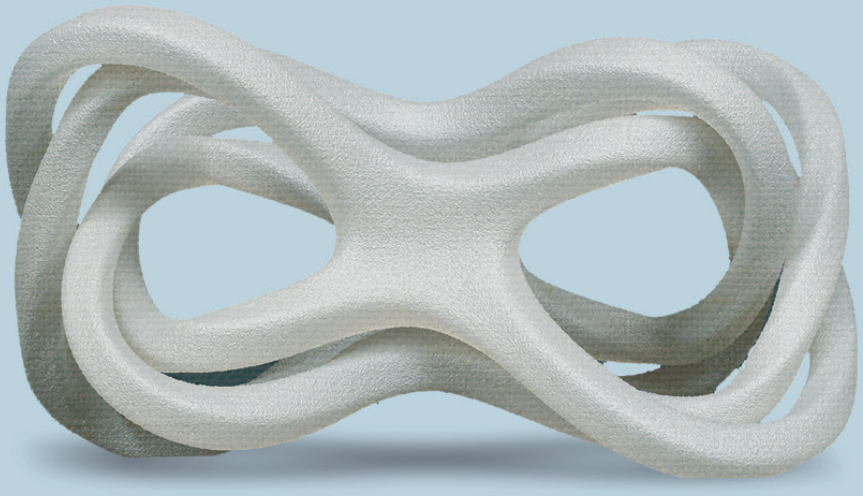
KIMYA **ABS-ESD** NATURAL



The ABS-ESD NATURAL is ideal for applications that require protection against electrostatic discharges. This material can be coloured on request.

| IMPACT RESISTANT | EASY TO PRINT

| ELECTROSTATIC DISCHARGE PROTECTION

FILAMENT PROPERTIES

PROPERTIES	TESTS METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183-1	g/cm³	1.03
Moisture rate	INS-6711	%	<1
Melt Flow Index (@220°c – 10 kg)	ISO 1133-1	g/10min	15 - 20
Glass transition temperature (Tg)	ISO 11357-1	°C	107

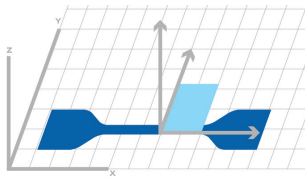
KIMYA
Additive Manufacturing by ARMOR

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	40 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	260°C
BED TEMPERATURE	100°C

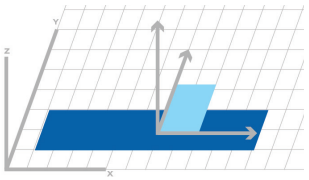
RESULTS

TENSILE TEST



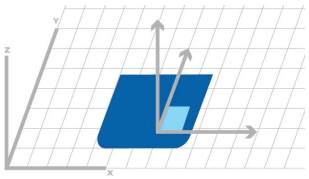
Dim.(mm) : 75x12.5x2
Specimen type ISO 527-5A

BENDING TEST - CHARPY IMPACT



Dim. (mm) : 80x10x4

HARDNESS



Dim.(mm) : 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
MECHANICAL PROPERTIES	Surface resistivity	ASTM D257	Ohms/m2	10^7 - 10^9
	Tensile modulus	ISO 527-2/5A/50	MPa	1,121
	Tensile strength	ISO 527-2/5A/50	MPa	24.3
	Tensile strain at strength	ISO 527-2/5A/50	%	3.1
	Tensile stress at break	ISO 527-2/5A/50	MPa	19.8
	Tensile strain at break	ISO 527-2/5A/50	%	6.4
	Flexural modulus	ISO 178	MPa	856
	Flexural stress at conventionnal deflection (3,5% strain)**	ISO 178	MPa	27.3
	Flexural strength	ISO 178	%	>5*
	Charpy impact resistance	ISO 179-1/1eA	kJ/m²	10.9
	Shore Hardness	ISO 868	Shore D	66.7

*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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