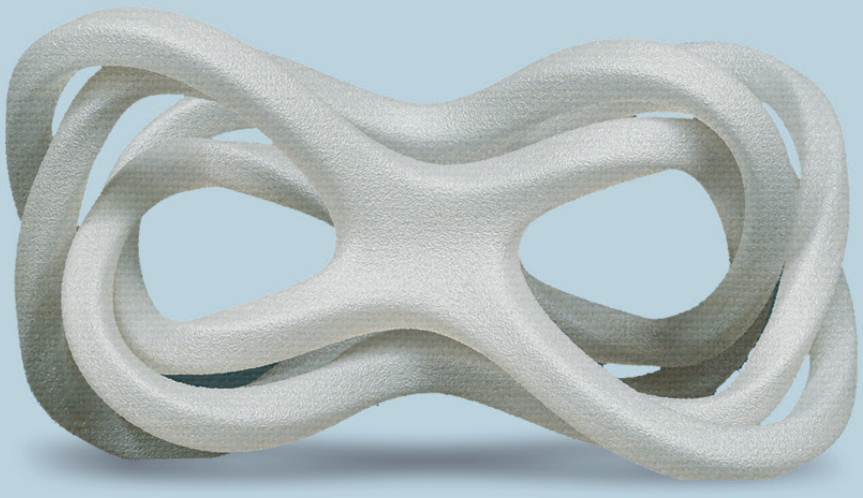
KIMYA PC-S



PC-S FILAMENT resists shock and heat. It is ideal for printing sturdy parts.

| FDA CERTIFICATION | STERILIZABLE

| HEAT RESISTANCE (UP TO 140°C)

FILAMENT PROPERTIES

DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1
Density	ISO 1183-1	g/cm³	1.193
Moisture rate	INS-6711	%	< 1
Melt Flow Index (MFI) (@260°C – 5 kg)	ISO 1133-1	g/10min	25.5
Glass transition temperature (Tg)	ISO 11357-1 DSC (10°C/min - 20-410°C)	°C	140

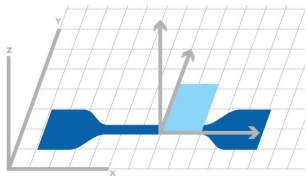
KIMYA
Additive Manufacturing by ARMOR

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	45 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	295°C
BED TEMPERATURE	105°C

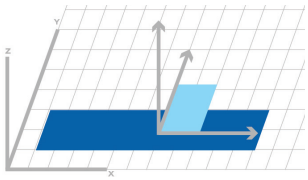
RESULTS

TENSILE TEST



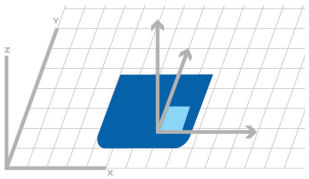
Dim.(mm): 75x12.5x2
Specimen type: ISO 527

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	2,172
	Tensile Strength	ISO 527-2/5A/50	MPa	53,8
	Tensile strain at strength	ISO 527-2/5A/50	%	3,7
	Tensile stress at break	ISO 527-2/5A/50	MPa	44,6
	Tensile strain at break	ISO 527-2/5A/50	%	4,8
	Flexural modulus	ISO 178	MPa	1,640
	Flexural stress at conventionnal deflection (3,5% strain)**	ISO 178	MPa	67,7
	Flexural strength	ISO 178	%	>5*
	Charpy impact resistance	ISO 179-1/1eA	kJ/m²	7,9
	Shore Hardness	ISO 868	Shore D	79,2

*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.

CERTIFICATION

FOOD CONTACT APPROVAL	EU 10/2011 (for all colors) & FDA 21 CFR (for all colors)

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