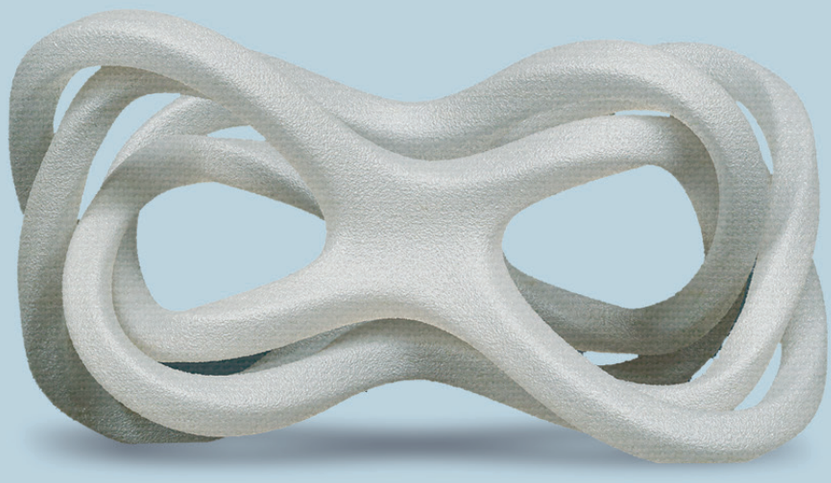
TPU-R KIMYA



KIMYA FLEXIBLE FILAMENT TPU-R
MADE OF 100% RECYCLED MATERIAL.

| FLEXIBILITY | 100% RECYCLED MATERIAL

FILAMENT PROPERTIES

DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 +/- 0.1
Density	ISO 1183-1	g/cm³	1.14
Moisture rate	INS-6711	%	<1
Melt Flow Index (MFI)	ISO 1133-1 (200°C - 5 kg)	g/10min	42 - 45
Glass transition temperature Tg	-	°C	-33

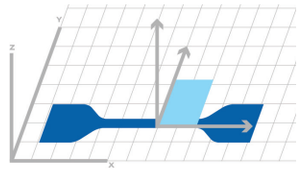
KIMYA
Additive Manufacturing by ARMOR

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	33 mm/s
INFILL	100% - rectilinear
CHAMBER TEMPERATURE	N/A
NOZZLE TEMPERATURE	210°C
BED TEMPERATURE	85°C

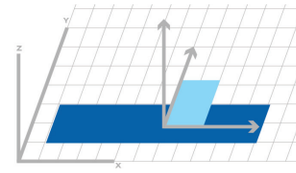
RESULTS

TENSILE TEST



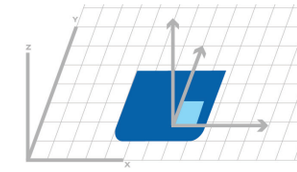
Dim.(mm): 75x12.5x2
Specimen type: ISO 527-5A

BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

HARDNESS



Dim.(mm): 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
TENSILE TEST	Tensile Modulus	ISO 37/2/500	MPa	55.2
	Strength	ISO 37/2/500	MPa	27.7
	Strain at Strength	ISO 37/2/500	%	>300
	Stress at break	ISO 37/2/500	MPa	27.4
	Strain at break	ISO 37/2/500	%	>300
BENDING TEST	Flexural modulus	ISO 178	MPa	45.6
	Flexural stress @conventionnal deflection (3,5% strain)*	ISO 178	MPa	1.9
CHARPY IMPACT	Charpy impact resistance	ISO 179-1/1eA	kJ/m²	No break
HARDNESS	Shore Hardness	ISO 868	Shore A	90

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

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La FRENCH FAB