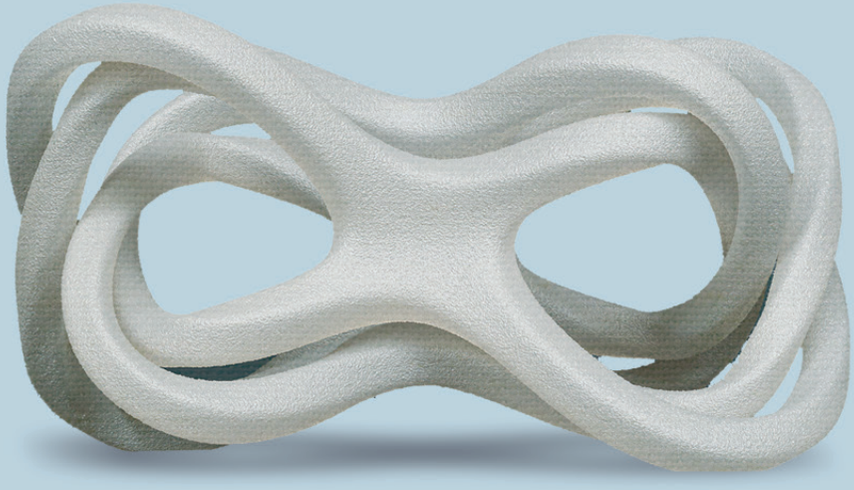
TPC-91A KIMYA



KIMYA FLEXIBLE FILAMENT OF THE FAMILY OF THERMOPLASTIC ELASTOMERS COPOLYESTERS

| FLEXIBILITY | EASY TO PRINT | LENGTHENING> 500%

FILAMENT PROPERTIES

PROPERTIES	TESTS METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183	g/cm3	1.22
Humidity rate	INS-6711	%	< 1
MFI (@210°C – 2,16 kg)	ISO 1133	g/10min	18 - 20
Melting temperature tf	ISO 11357 DSC (10°C/min – 20 à 220°C)	°C	160

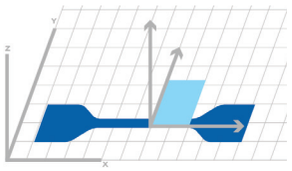
KIMYA

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINT AXIS	XY
PRINT SPEED	44 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	260°C
PLATFORM TEMPERATURE	60°C

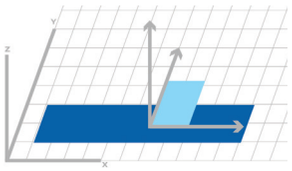
RESULTS

TENSILE TEST



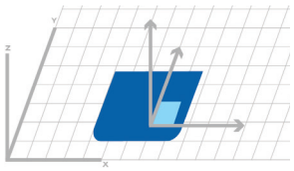
Dim.(mm) : 75x12.5x2
Specimen type ISO 527-5A

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	MPa	67
Tensile strength	ISO 37	MPa	17.7
Elongation tensile strength	ISO 37	%	> 500
Tensile stress break	ISO 37	MPa	17.5
Tensile elongation break	ISO 37	%	> 500
	BENDING TEST		
Flexural modulus	ISO 178	MPa	66
Constraint to 3,5%	ISO 178	MPa	2.6
*According to ISO 178, end of the test at 5% deformation even if there is no specimen break			
	CHARPY IMPACT		
Charpy impact strength (notched type A)	ISO 179	kJ/m2	No break
	HARDNESS		
Hardness	ISO 868	Shore A	91

The results presented are the averaged values of the ABS ESD-R range 1.75 mm
For each test, 5 specimens per reference, previously placed at least 24 hours in climatic chambers (23 ° C - hygrometry: 50%), have been tested.

3D MATERIALS BY ARMOR©
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