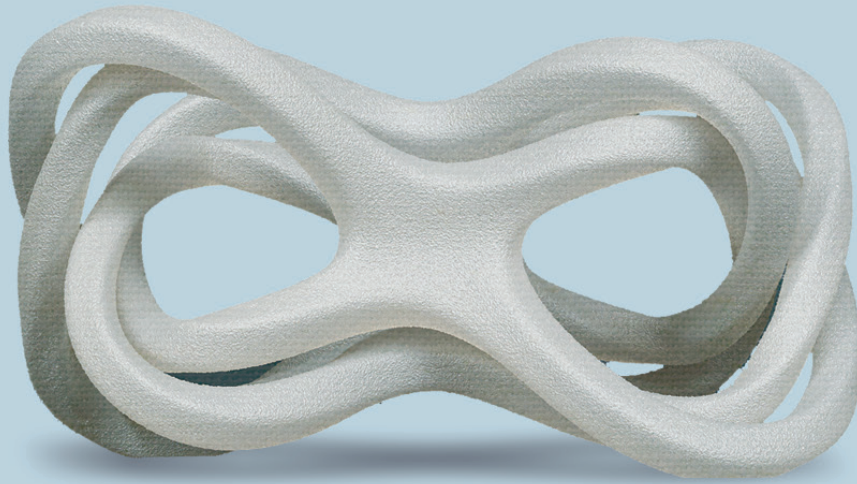




KIMYA TPU-92A



TPU-92A FILAMENT offers the possibility to print flexible objects and resists to different solvents.

| ELASTIC | ABRASION RESISTANCE

| CHEMICAL RESISTANCE | FLEXIBLE

FILAMENT PROPERTIES

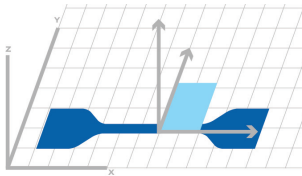
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.15 2.85 ± 0.15
Density	ISO 1183-1	g/cm ³	1,159
Moisture rate	INS-6711	ppm	< 1
Melt Flow Index (MFI) (@210°C – 2.16 kg)	ISO 1133-1	g/10min	16,5

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	33 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	210°C
BED TEMPERATURE	85°C

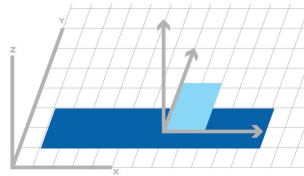
RESULTS

TENSILE TEST



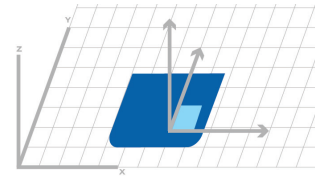
Dim.(mm): 75x12.5x2
Specimen type: ISO 527-5A

BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

HARDNESS



Dim.(mm): 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
MECHANICAL PROPERTIES	Tensile modulus	ISO 37/2/500	MPa	90
	Tensile strength	ISO 37/2/500	MPa	43,1
	Tensile strain at strength	ISO 37/2/500	%	350
	Tensile stress at break	ISO 37/2/500	MPa	41,7
	Tensile strain at break	ISO 37/2/500	%	351,6
	Flexural modulus	ISO 178	MPa	81
	Flexural stress at conventionnal deflection (3,5% strain)**	ISO 178	MPa	3
	Flexural strength	ISO 178	%	>5*
	Charpy impact resistance	ISO 179-1/1EA	kJ/m ²	no break
	Shore Hardness	ISO 868	Shore A	92,0

*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 except black)