



Kimya TPU-92A 3D Filament

The Kimya **TPU-92A** 3D filament belongs to the thermoplastic polyurethane (TPU) family. It offers good resistance to heat and to the external environment as well as a Shore hardness of 92A. It can be used to print flexible, resistant parts. The Kimya TPU-92A 3D filament is used in the food, electronics, automotive and consumer goods sectors. It offers the following properties:

- Flexibility
- Resistance to abrasion
- Food contact certification **EU 10/2011** (black, blue and white) and **FDA 21 CFR** (blue and white)
- Complies with the **REACH** regulation and the **RoHS** directive

2-year KIMYA warranty.

Store away from light, humidity and heat to maintain the properties of the product.

FILAMENT PROPERTIES

PROPERTIES	TEST METHODS	VALUES
Diameter	INS-6712	1.75 ± 0.1 mm 2.85 ± 0.1 mm
Density	ISO 1183-1	1.2 g/cm ³
Moisture rate	INS-6711	< 0.5 %
Melt flow index (MFI)	ISO 1133-1 (@210°C – 2.16 kg)	21 g/10min

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
Printing Speed	20-70 mm/s
Infill	100% - rectilinear
Infill Angle	45°/-45°
Nozzle Temperature	210-250°C
Bed T°	60-90°C

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	VALUES
MECHANICAL PROPERTIES	Tensile modulus	ISO 37/2/500	104 MPa
	Tensile Strength	ISO 37/2/500	28 MPa
	Tensile strain at strength	ISO 37/2/500	296 %
	Tensile Stress at Break	ISO 37/2/500	28 MPa
	Tensile strain at break (type A)	ISO 37/2/500	307 %
	Flexural modulus	ISO 178	96 MPa
	Deformation at Flexural Strain	ISO 178	< 5 %
	Flexural stress at conventional deflection (3,5% strain)*	ISO 178	3.5 MPa
	Charpy impact resistance	ISO 179-1/1eA	No Break
	Shore Hardness	ISO 868	92A
Note 1	*According to ISO 178, end of the test at 5% deformation even if there is no specimen break.		
Note 2	The data should be considered as indicative values - Properties can be influenced by production conditions.		

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