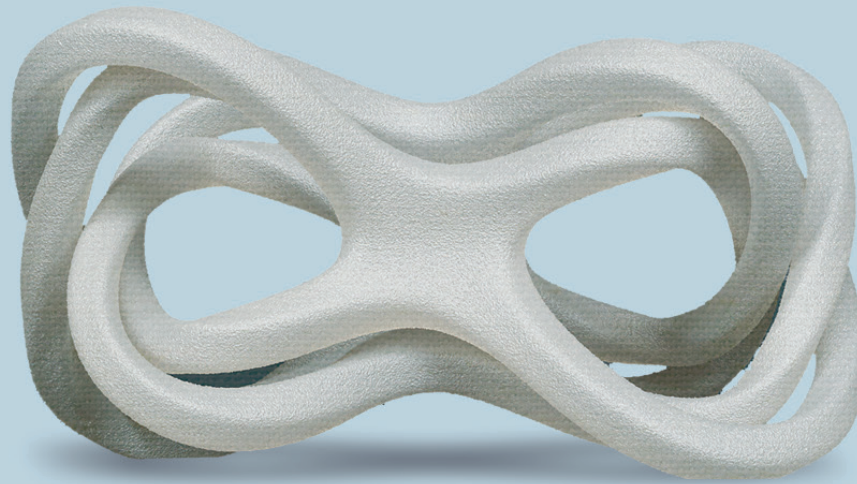




TPC-ESD KIMYA



TPC-ESD filament has excellent flexibility, chemical resistance and toughness. It has also been developed to ensure better electrical conductivity.

| FLEXIBILITY | EASY TO PRINT

| ELONGATION > 400% | ESD PROTECTION

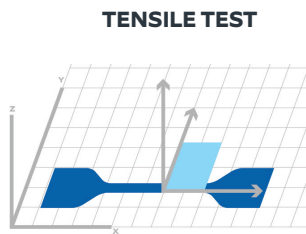
FILAMENT PROPERTIES

DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1
Density	ISO 1183-1	g/cm ³	1.20
Moisture rate	INS-6711	%	< 1
Melt Flow Index (MFI) (@210°C – 2.16 kg)	ISO 1133-1	g/10min	21 - 25
Melting temperature T _m	ISO 11357-1 DSC (10°C/min – 20 to 220°C)	°C	160

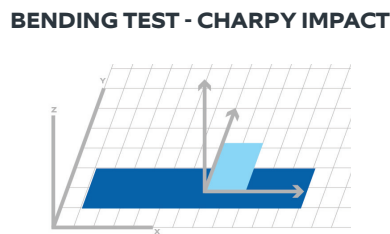
PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	44 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	260°C
BED TEMPERATURE	60°C

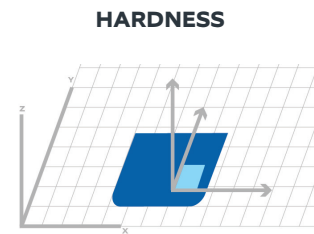
RESULTS



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



Dim. (mm): 80x10x4



Dim.(mm): 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
ELECTRICAL PROPERTIES	Surface resistivity	ASTM D257	Ohms/sq	10 ⁷ - 10 ⁹
TENSILE TEST	Tensile modulus	ISO 37/2/500	MPa	46
	Strength	ISO 37/2/500	MPa	13.1
	Strain at Strength	ISO 37/2/500	%	>400
	Stress at break	ISO 37/2/500	MPa	12.8
	Strain at break	ISO 37/2/500	%	>400
BENDING TEST	Flexural modulus	ISO 178	MPa	54
	Flexural stress at conventional deflection (3,5% strain)*	ISO 178	MPa	2.0
CHARPY IMPACT	Charpy impact resistance	ISO 179-1/1eA	kJ/m ²	No break
HARDNESS	Shore Hardness	ISO 868	Shore A	91

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