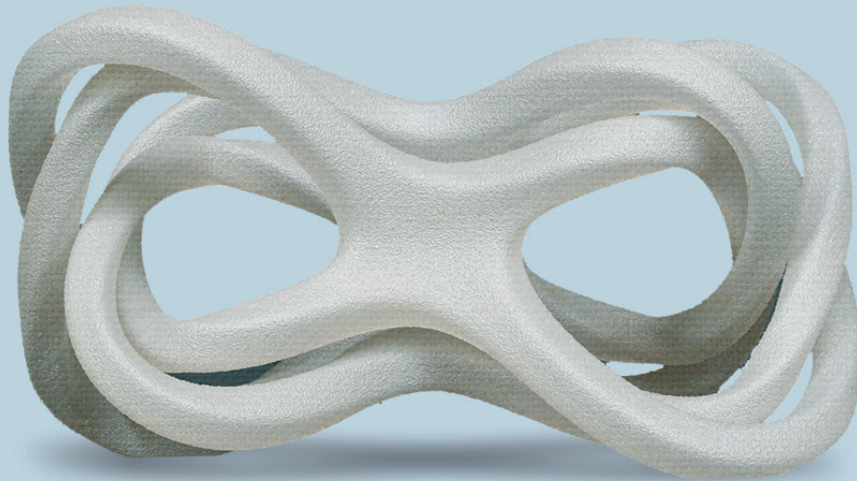




KIMYA **PETG-S**



PETG-S confers to the filament the perfect balance between flexibility and mechanical strength.

| **FLEXIBLE & STRONG** | **INTERLAYER ADHESION**
| **LOW WATER ABSORPTION** | **FOOD CONTACT COMPLIANT**

FILAMENT PROPERTIES

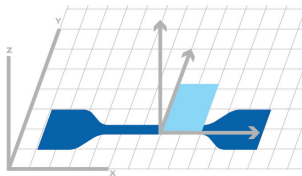
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183-1	g/cm ³	1,274
Moisture rate	INS-6711	%	< 1
Melt Flow Index (MFI) (@225°C – 2.16 kg)	ISO 1133-1	g/10min	12,1
Glass transition temperature (Tg)	ISO 11357-1 DSC (10°C/min – 20 à 280°C)	°C	80

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	50 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	225°C
BED TEMPERATURE	60°C

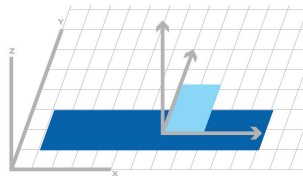
RESULTS

TENSILE TEST



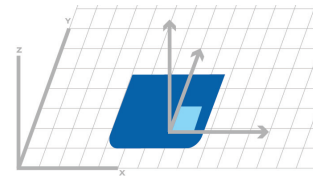
Dim.(mm): 75x12.5x2
Specimen type: ISO 527-5A

BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

HARDNESS



Dim.(mm): 45x45x4

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
MECHANICAL PROPERTIES	Tensile modulus	ISO 527-2/5A/50	MPa	1,833
	Tensile strength	ISO 527-2/5A/50	MPa	46,6
	Tensile strain at strength	ISO 527-2/5A/50	%	3,3
	Tensile stress at break	ISO 527-2/5A/50	MPa	11,1
	Tensile strain at break	ISO 527-2/5A/50	%	24,3
	Flexural modulus	ISO 178	MPa	1,641
	Flexural stress at conventionnal deflection (3,5% strain)**	ISO 178	MPa	57,5
	Flexural strength	ISO 178	%	>5*
	Charpy impact resistance	ISO 179-1/1eA	kJ/m ²	4,0
	Shore Hardness	ISO 868	Shore D	72,5

*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 natural only)