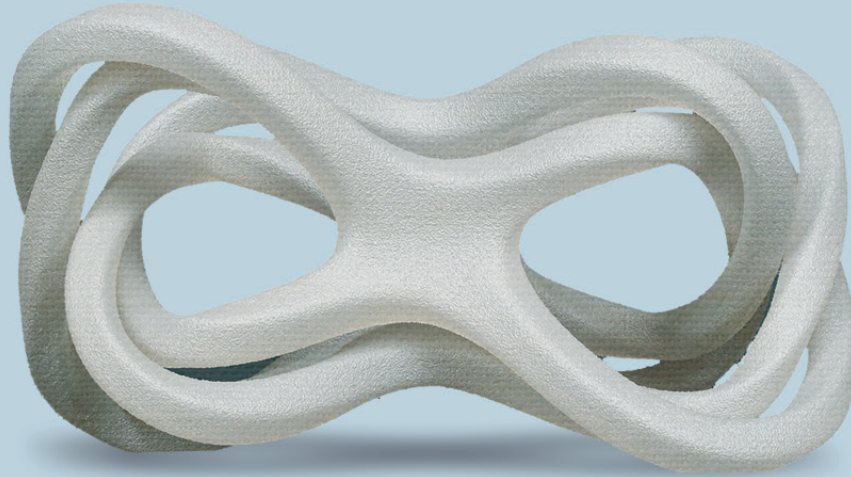




## PETG-S



**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

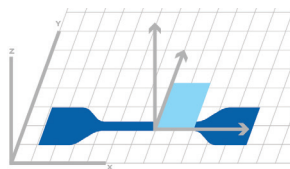
DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183-1	g/cm <sup>3</sup>	1.274
Moisture rate	INS-6711	%	< 0,7
Melt Flow Index (MFI) (@225°C – 2.16 kg)	ISO 1133-1	g/10min	12.1
Glass transition temperature Tg	ISO 11357-1 DSC (10°C/min – 20 à 280°C)	°C	80
Melting temperature Tm	ISO 11357-1 DSC (10°C/min – 20 à 280°C)	°C	n/a

## PRINT PARAMETERS AND SPECIMENS DIMENSIONS

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

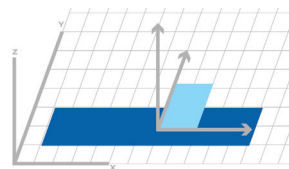
## RESULTS

### TENSILE TEST



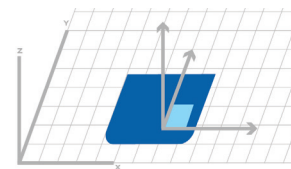
Dim.(mm): 75x12.5x2  
Specimen type: ISO 527-5A

### BENDING TEST - CHARPY IMPACT



Dim. (mm): 80x10x4

### HARDNESS



Dim.(mm): 45x45x4

## PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	UNITS	VALUES
<b>TENSILE TEST</b>	Tensile modulus	ISO 527-2/5A/50	MPa	1,833
	Strength	ISO 527-2/5A/50	MPa	46.6
	Strain at Strength	ISO 527-2/5A/50	%	3.3
	Stress at break	ISO 527-2/5A/50	MPa	11.1
	Strain at break	ISO 527-2/5A/50	%	24.3
<b>BENDING TEST</b>	Flexural modulus	ISO 178	MPa	1,641
	Flexural stress at conventional deflection (3,5% strain)	ISO 178	MPa	57.5
	Flexural strain at flexural strength	ISO 178	%	>5*
<b>CHARPY IMPACT</b>	Charpy impact resistance	ISO 179-1/1eA	kJ/m <sup>2</sup>	4.0
<b>HARDNESS</b>	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

## CERTIFICATION

**FOOD CONTACT APPROVAL**

**EU 10/2011** (for all colours) & **FDA 21 CFR** (for natural only)

ARMOR USA, INC  
2900 EARHART COURT  
HEBRON KY, 41048  
TEL. : 859 689 2100 – EMAIL : KIMYA@ARMOR-GROUP.COM  
[WWW.ARMOR-GROUP.COM/KIMYA](http://WWW.ARMOR-GROUP.COM/KIMYA)