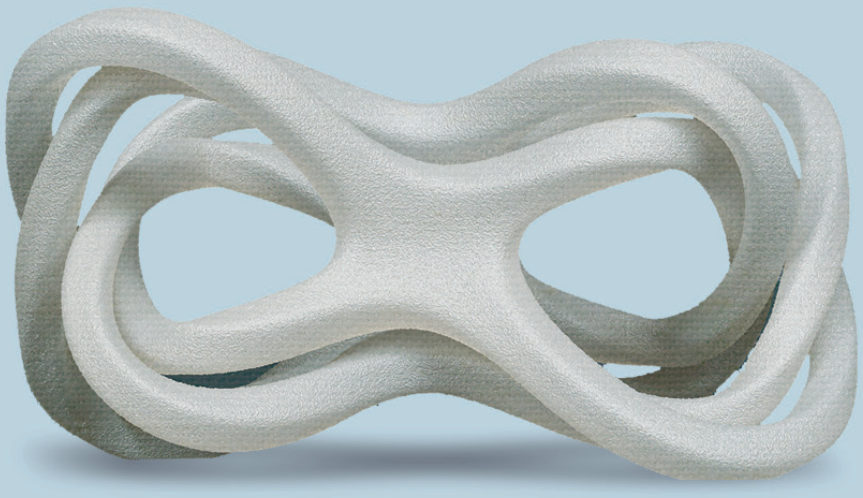
KIMYA ABS-S



ABS-S FILAMENT is a Standard ABS with high impact resistance.

| IMPACT RESISTANCE

| BETTER TEMPERATURE RESISTANCE THAN PLA (AROUND 90°C)

FILAMENT PROPERTIES

DESCRIPTION	TEST METHODS	UNITS	VALUES
Diameter	INS-6712	mm	1.75 ± 0.1 2.85 ± 0.1
Density	ISO 1183-1	g/cm³	1.035
Moisture rate	INS-6711	%	< 1
Melt Flow Index (MFI) (@220°C – 10 kg)	ISO 1133-1	g/10min	3.5 – 6.0
Glass transition temperature (Tg)	ISO 11357-1 DSC (10°C/min – 20 to 300°C)	°C	107

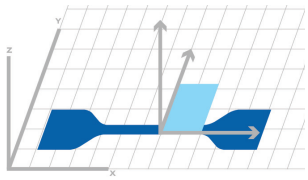
KIMYA
Additive Manufacturing by ARMOR

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
PRINTING SPEED	25 - 50 mm/s
INFILL	100% - rectilinear
INFILL ANGLE	45°/-45°
EXTRUSION TEMPERATURE	260°C
BED TEMPERATURE	85 - 95°C

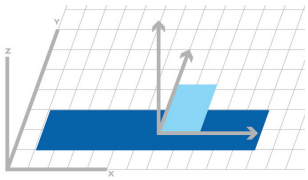
RESULTS

TENSILE TEST



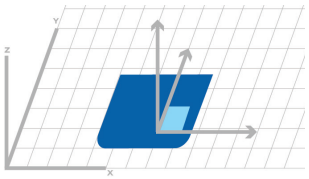
Dim.(mm): 75x12.5x2
Specimen type: ISO 527-5A

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	1,484
	Tensile strength	ISO 527-2/5A/50	MPa	35,3
	Tensile strain at strength	ISO 527-2/5A/50	%	2,7
	Tensile Stress at Break	ISO 527-2/5A/50	MPa	22,8
	Tensile strain at break	ISO 527-2/5A/50	%	9,8
	Flexural modulus	ISO 178	MPa	1,443
	Flexural stress at conventionnal deflection (3,5% strain)**	ISO 178	MPa	43,6
	Flexural strength	ISO 178	MPa	>5*
	Charpy impact resistance	ISO 179-1/1eA	kJ/m^2	24,7
	Shore Hardness	ISO 868	Shore D	70

*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.

ARMOR SAS - 20 RUE CHEVREUL
44105 NANTES – FRANCE
TEL. : +33 2 40 38 40 80 – EMAIL : KIMYA@ARMOR-GROUP.COM
WWW.ARMOR-GROUP.COM/KIMYA