



Kimya ABS Carbon 3D Filament

ABS CARBON FILAMENT improves interlayer adhesion and increases compression strength.

- NO SHRINKAGE
- BETTER TENSILE MODULUS THAN ABS
- BETTER INTERLAYER ADHESION
- LIGHT WEIGHT OBJECTS

ARMOR 2 years warranty.

FILAMENT PROPERTIES

PROPERTIES	TEST METHODS	VALUES
Diameter	INS-6712	1.75 ± 0.1 mm 2.85 ± 0.1 mm
Density	ISO 1183-1	1.032 g/cm ³
Moisture rate	INS-6711	< 1 %
Melt flow index (MFI)	ISO 1133-1 (@220°C – 10 kg)	35.7 g/10min
Glass transition temperature (T _g)	ISO 11357-1 DSC (10°C/min - 20-220°C)	100 °C
Melting Temperature (T _m)	ISO 11357-1 DSC (10°C/min – 20-220°C)	30 °C

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
Printing Speed	50 mm/s
Infill	100% - rectilinear
Infill Angle	45°/-45°
Nozzle Temperature	260°C
Bed T°	100°C

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	VALUES
MECHANICAL PROPERTIES	Tensile modulus	ISO 527-2/5A/50	2,189 MPa
	Tensile Strength	ISO 527-2/5A/50	37.4 MPa
	Tensile Stress at Break	ISO 527-2/5A/50	33.2 MPa
	Tensile strain at break	ISO 527	3.1 %
	Flexural modulus	ISO 178	1,822 MPa
	Flexural stress at conventional deflection (3,5% strain)*	ISO 178	56.6 MPa
	Flexural strain at flexural strength	ISO 178	>5 %
	Charpy impact resistance	ISO 179-1/1eA	7.3 kJ/m ²
	Shore Hardness	ISO 868	93D
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.		

Created on 10/01/2018 - Revised on 31/12/2019.