



Kimya ASA-S 3D Filament

The 3D filament Kimya **ASA-S** belongs to the styrenic polymer family. Acrylonitrile styrene acrylate (**ASA**) is an opaque thermoplastic terpolymer. ASA offers properties close to ABS but is suitable for long-term external use. Its resistance to climatic conditions provides it with durability over time. ASA is notably used in the automotive industry.

- High weather resistance
- High UV resistance
- Complies with the **RoHS** and **REACH** standards

2-year ARMOR warranty.

FILAMENT PROPERTIES

PROPERTIES	TEST METHODS	VALUES
Diameter	INS-6712	1,75 ± 0,1 mm 2,85 ± 0 mm
Density	ISO 1183-1	1,056 g/cm ³
Moisture rate	INS-6711	< 0,5 %
Melt flow index (MFI)	ISO 1133-1 (@220°C – 10 kg)	4 - 10 g/10min
Glass transition temperature (T_g)	ISO 11357-1 DSC (10°C/min - 20-300°C)	108 °C

PRINT PARAMETERS AND SPECIMENS DIMENSIONS

PRINTING DIRECTION	XY
Printing Speed	50 mm/s
Infill	100% - rectilinear
Infill Angle	45°/-45°
Nozzle Temperature	250°C
Bed T°	95°C

PRINTED SPECIMENS PROPERTIES

	PROPERTIES	TEST METHODS	VALUES
MECHANICAL PROPERTIES	Tensile modulus	ISO 527-2/5A/50	1 685 MPa
	Tensile Strength	ISO 527-2/5A/50	38,8 MPa
	Tensile strain at strength	ISO 527-2/5A/50	2,4 %
	Tensile Stress at Break	ISO 527-2/5A/50	34,6 MPa
	Tensile strain at break (type A)	ISO 527-2/5A/50	4,3 %
	Flexural modulus	ISO 178	1 662 MPa
	Flexural strength*	ISO 178	>5 MPa
	Flexural stress at conventional deflection (3,5% strain)*	ISO 178	57,3 MPa
	Charpy impact resistance	ISO 179-1/1eA	13 kJ/m ²
	Shore Hardness	ISO 868	74D
Note 1	*Fin de l'essai à 5% d'allongement d'après la norme ISO 178 même si l'éprouvette ne rompt pas.		
Note 2	Les données doivent être considérées comme des valeurs indicatives - Les propriétés peuvent être influencées par les conditions de production.		

Created on 26/11/2019 - Revised on 26/11/2019.