AIRTECH EUROPE SARL
18, ZI Haneboesch
L-4562 Differdange
LUXEMBOURG
Phone: +352 58 22 82 1
Fax: + 352 58 49 35
E-mail: sales@airtech.lu
Website: www.airtech.lu

Fiche Technique

KIMYA PA6-CO 3D FILAMENT

Nylon 6 copolymer additive manufacturing filament

DESCRIPTION

Kimya PA6-CO is a 3D printing filament made from a Nylon 6-based copolymer. This unfilled polyamide stands out for its excellent tensile strength, low warping, and ease of use—even on open-chamber printers. Unlike many other nylon filaments, PA6-CO combines strong mechanical, chemical, and heat resistance with user-friendly printability, making it an ideal standard polyamide for functional parts and industrial applications. As with all polyamides, the filament should be dried before printing to ensure optimal results.

BENEFITS

- Strong and Reliable.
- Low Warping Behavior.
- Chemical and Heat Resistant.

TECHNICAL DATA

Properties	Values	Test Methods
Diameter	1.75 ± 0.1 mm 2.85 ± 0.1 mm	INS-6712
Density	1.157 g/cm^3 (0.042 lb/in^3)	ISO 1183-1
Glass transition temperature (Tg)	65°C (149°F)	ISO 11357-1 DSC (10°C/min-20-300°C)
Melting Temperature (Tm)	227°C (440°F)	ISO 11357-1 DSC (10°C/min-0-300°C)
Properties	**Values**	**Test Methods**
Tensile Modulus	2,166 MPa (314.2 ksi)	ISO 527-2/1A/50
Tensile Strength	56.1 MPa (8.14 ksi)	ISO 527-2/1A/50
Tensile Strain at Strength	4.3 %	ISO 527-2/1A/50
Tensile Stress at Break	13.4 MPa (1.94 ksi)	ISO 527-2/1A/50
Tensile Strain at Break (type A)	< 14 %	ISO 527-2/1A/50
Flexural Modulus	2,017 MPa (292.5 ksi)	ISO 178
Deformation at Flexural Strain	< 5 %	ISO 178
Flexural Stress at Conventional Deflection (3.5% Strain)*	65.9 MPa (9.56 ksi)	ISO 178
Charpy Impact Resistance	3.9 kJ/m^2 (1.85 ft-lbs/in^2)	ISO 179-1/1eA
Shore Hardness	77.3 D	ISO 868

PROCESSING

Printing Direction	XY
Printing Speed	50-60 mm/s
Nozzle Temperature	265°C - 275°C (509°F - 527°F)
Bed Temperature	70°C - 80°C (158°F - 176°F)

SUSTAINABILITY

NOTES

- *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.

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