

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**

Diameter

Density

Glass transition temperature (T_g)Melting Temperature (T_m)**Values**

1.75 ± 0.1 mm

2.85 ± 0.1 mm

1.157 g/cm³ (0.042 lb/in³)

65°C (149°F)

227°C (440°F)

Test Methods

INS-6712

ISO 1183-1

ISO 11357-1 DSC (10°C/min-20-300°C)

ISO 11357-1 DSC (10°C/min-0-300°C)

Properties

Tensile Modulus

Tensile Strength

Tensile Strain at Strength

Tensile Stress at Break

Tensile Strain at Break (type A)

Flexural Modulus

Deformation at Flexural Strain

Flexural Stress at Conventional

Deflection (3.5% Strain)*

Charpy Impact Resistance

Shore Hardness

Values

2,166 MPa (314.2 ksi)

56.1 MPa (8.14 ksi)

4.3 %

13.4 MPa (1.94 ksi)

< 14 %

2,017 MPa (292.5 ksi)

< 5 %

65.9 MPa (9.56 ksi)

3.9 kJ/m² (1.85 ft-lbs/in²)

77.3 D

Test Methods

ISO 527-2/1A/50

ISO 527-2/1A/50

ISO 527-2/1A/50

ISO 527-2/1A/50

ISO 527-2/1A/50

ISO 178

ISO 178

ISO 178

ISO 179-1/1eA

ISO 868

PROCESSING**Printing Direction**

Printing Speed

Nozzle Temperature

Bed Temperature

XY

50-60 mm/s

265°C - 275°C (509°F - 527°F)

70°C - 80°C (158°F - 176°F)

SUSTAINABILITYCan be
recycledRecyclable
packaging**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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