

## 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<sub>g</sub>)Melting Temperature (T<sub>m</sub>)**Values**

1.75 ± 0.1 mm

2.85 ± 0.1 mm

1.157 g/cm<sup>3</sup> (0.042 lb/in<sup>3</sup>)

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)

&lt; 14 %

2,017 MPa (292.5 ksi)

&lt; 5 %

65.9 MPa (9.56 ksi)

3.9 kJ/m<sup>2</sup> (1.85 ft-lbs/in<sup>2</sup>)

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)

**SUSTAINABILITY**Can 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.

Dernière mise à jour : 2025-12-22

Nom du chapitre : **KIMYA Filaments for Additive Manufacture**

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