

Fiche Technique

KIMYA PLA-R 3D FILAMENT

Recycled PLA additive manufacturing filament

DESCRIPTION

Kimya PLA-R is a 3D printing filament made from recycled and biodegradable PLA (Polylactic Acid), a biosourced polymer derived from corn starch. As a natural alternative to petroleum-based plastics like polyethylene, PLA-R is both eco-friendly and easy to print with. It is odorless and well-suited for a wide range of applications—from industrial uses such as packaging to everyday items, toys, prototypes, and modeling. Kimya PLA-R combines printability, sustainability, and versatility, making it a great choice for environmentally conscious 3D printing.

BENEFITS

- Consistent Print Quality
- Low Shrinkage
- Fast Printing Speed

TECHNICAL DATA**Properties**

Diameter	1.75 ± 0.1 mm 2.85 ± 0.1 mm
Density	1.235 g/cm ³
Moisture rate	< 0.5 %
Melt flow index (MFI)	9-12 g/10min
Glass transition temperature (T _g)	61°C (142°F)
Melting Temperature (T _m)	165°C (329°F)

Values

1.75 ± 0.1 mm 2.85 ± 0.1 mm
1.235 g/cm ³
< 0.5 %
9-12 g/10min
61°C (142°F)
165°C (329°F)

Test Methods

INS-6712
ISO 1183-1
INS-6711
ISO 1133-1
ISO 11357-1 DSC (10°C/min-20-220°C)
ISO 11357-1 DSC (10°C/min-20-220°C)

Properties

Tensile Modulus	2,818 MPa (408.7 ksi)
Tensile Strength	55.32 MPa (8.0 ksi)
Tensile Strain at Strength	2.1 %
Tensile Stress at Break	41.2 MPa (6.0 ksi)
Tensile Strain at Break (type A)	4.32 %
Flexural Modulus	2,304 MPa (334 ksi)
Flexural Stress at Break	82.3 MPa (11.94 ksi)
Deformation at Flexural Strain	4.22 %
Flexural Stress at Conventional Deflection (3.5% Strain)*	81.72 MPa (11.9 ksi)
Charpy Impact Resistance	3.12 kJ/m ² (1.5 ft-lbs/in ²)
Shore Hardness	75.2 D

Values

2,818 MPa (408.7 ksi)
55.32 MPa (8.0 ksi)
2.1 %
41.2 MPa (6.0 ksi)
4.32 %
2,304 MPa (334 ksi)
82.3 MPa (11.94 ksi)
4.22 %
81.72 MPa (11.9 ksi)
3.12 kJ/m ² (1.5 ft-lbs/in ²)
75.2 D

Test Methods

ISO 527-2/5A/50
ISO 527-2/5A/50
ISO 527-2/5A/50
ISO 527-2/5A/50
ISO 527-2/5A/50
ISO 178
ISO 178
ISO 178
ISO 178
ISO 179-1/1eA
ISO 868

PROCESSING**Printing Direction**

Printing Speed	Initial layers: 10-20 mm/s, further layers 30-60 mm/s
Nozzle Temperature	190°C - 210°C (374°F - 410°F)
Bed Temperature	20°C - 60°C (68°F - 140°F)

XY

Initial layers: 10-20 mm/s, further layers 30-60 mm/s
190°C - 210°C (374°F - 410°F)
20°C - 60°C (68°F - 140°F)

SUSTAINABILITY

Can be recycled



Contains recycled materials



Made with Bio-based materials



Recyclable packaging



Biodegradable Product

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**

As the conditions or methods of use, including storage, are beyond our control, Airtech Europe does not assume any responsibility for the performance of this material for any particular use. The material is sold "as is". Airtech Europe disclaims, and buyer waives, any and all implied warranties, including without limitation the implied warranties of merchantability and of fitness for particular use. The information contained herein represents typical properties and should not be used for specification purposes. This translation is provided for your convenience only. The official language is English and the official law is Luxembourg.