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 PEI-1010 3D FILAMENT

Flame resistant and industry-ready Filament for FFF 3D printers

DESCRIPTION

Kimya PEI-1010 is a 3D printing filament made from polyetherimide (PEI), an amorphous thermoplastic belonging to the polyimide family. Known for its excellent resistance to high temperatures and chemicals, PEI-1010 also offers outstanding dimensional stability, making it ideal for precision applications. It is widely used in demanding industries such as electronics, transportation, and medical, where mechanical strength and thermal reliability are essential.

BENEFITS

- UV and Chemical Resistance.
- Flame retardant.
- Dimensional Stability.

TECHNICAL DATA

Properties	Values	Test Methods
Diameter	1.75 ± 0.1 mm 2.85 ± 0.1 mm	INS-6712
Density	1.28 g/cm^3 (0.046 lb/in^3)	ISO 1183-1
Melt flow index (MFI)	14 - 16 g/10 min	ISO 1133-1(@340°C-5kg)
Glass transition temperature (Tg)	217°C (423°F)	ISO 11357-1 DSC (10°C/min-0-420°C)
Properties	**Values**	**Test Methods**
Tensile Modulus	2,917.5 MPa (423.1 ksi)	ISO 527
Tensile Strength	90.9 MPa (13.2 ksi)	ISO 527-2/1A/50
Tensile Strain at Strength	5.6 %	ISO 527-2/1A/50
Tensile Stress at Break	90.9 MPa (13.2 ksi)	ISO 527-2/1A/50
Tensile Strain at Break (type A)	5.6 %	ISO 527-2/1A/50
Tensile Strain at Break (type B et C)	5.6 %	ISO 527-2/1A/50
Flexural Modulus	2,236 MPa (324.3 ksi)	ISO 178
Deformation at Flexural Strain	> 5 %	ISO 178
Flexural Stress at Conventional Deflection (3.5% Strain)*	76 MPa (11 ksi)	ISO 178
Charpy Impact Resistance	3.1 kJ/m^2 (1.5 ft-lbs/in^2)	ISO 179-1/1eA
Shore Hardness	84.5 D	ISO 868

PROCESSING

Printing Direction	XY
Printing Speed	35-45 mm/s
Nozzle Temperature	375°C - 390°C (707°F - 734°F)
Chamber Temperature	215°C - 225°C (419°F - 437°F)

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.