

PEI ULTEM™ 1010

PEI ULTEM™ 1010 is an ultra-performance material with exceptional dimensional stability, inherent flame retardancy and good chemical resistance. PEI ULTEM™ 1010 is a material from SABIC. This material is an amorphous, amber to transparent thermoplastics with a glass transition temperature (T_g) of 217°C and performs in continuous use up to 170°C. PEI ULTEM™ 1010 offers superior tensile strength and excellent chemical and thermal resistance for an FDM thermoplastic.

Material features:

- Low smoke evolution
- High thermal properties 217°C (T_g)
- Dimensional stability
- Flame retardant
- Outstanding strength and amorphous thermoplastic

Colours:

PEI ULTEM™ 1010 is available in the colour natural.

NA1

Packaging:

PEI ULTEM™ 1010 is available on polycarbonate and carton spools.

Ask our team to help you customizing your product.



Filament specs.

Size	Ø tolerance	Roundness
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

Material properties

Description	Testmethod	Typical value
Specific gravity	ISO 1183	1,27 g/cc
MFI 340°C/5kg	ISO 1133	11 g/10min
Tensile strength at yield	ISO 527	105 MPa
Tensile strength at break	ISO 527	54 MPa
Elongation strain at break	ISO 527	60%
Elongation strain at yield	ISO 527	6%
Tensile (E) modulus	ISO 527	3200 MPa
Impact strength - Charpy notched 23°C	ISO 180	5 kJ/m ²
Flexural modulus	ISO 178	3200 MPa
Flexural strength	ISO 178	160 MPa
Flame retardancy	UL94 (1,5mm)	V-0
Vicat softening temp. B	ISO 306 B50	211°C
Heat deflection temp. B (0,45MPa)	ISO 75-2	200°C
Printing temp.	Internal Method	370±15°C

Additional info:

Recommended temperature for heated bed is ≥120°C. Adhesion is possible on different surfaces.

PEI ULTEM™ 1010 can be used on desktop FDM or FFF technology 3D printers able to reach the required temperatures. Dry the spool before printing: +4 hours at max. 110°C.

Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly.

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