ULTEM™ Filament AMHU1010F

PEI — Saudi Basic Industries Corporation (SABIC)

Product Texts

ULTEM™ AMHU1010F filament is a polyetherimide product for 3D printing applications manufactured from ULTEM™ HU1010 resin. The filament is biocompatible (ISO 10993 or USP Class VI) and printed parts can be gamma, EtO or steam sterilized. This filament can be used for food and drug packaging and medical device manufacturing, from conceptual modeling to functional prototyping and end-use parts. Filament spools can be linked to resin raw material batch to help ensure material compliance and traceability.

3D Data	Value	Unit	Test Standard
Other Standards[S]			
Tensile modulus, flat	**2750**	MPa	ASTM D 638
Tensile modulus, on-edge	**2870**	MPa	ASTM D 638
Tensile modulus, upright	**2840**	MPa	ASTM D 638
Stress at break, flat	**73**	MPa	ASTM D 638
Stress at break, on-edge	**80**	MPa	ASTM D 638
Stress at break, upright	**34**	MPa	ASTM D 638
Strain at break, flat	**4**	%	ASTM D 638
Strain at break, on-edge	**3.8**	%	ASTM D 638
Strain at break, upright	**1.3**	%	ASTM D 638
Flexural modulus, flat	**2520**	MPa	ASTM D 790
Flexural modulus, on-edge	**2840**	MPa	ASTM D 790
Flexural modulus, upright	**2380**	MPa	ASTM D 790
Temp. of deflection under load, 1.80 MPa, flat	**211**	°C	ASTM D 6484
Temp. of deflection under load, 1.80 MPa, on-edge	**210**	°C	ASTM D 6484
Temp. of deflection under load, 1.80 MPa, upright	**208**	°C	ASTM D 6484
Vicat softening temperature, B, flat	**220**	°C	ASTM D 1525
Vicat softening temperature, B, on-edge	**220**	°C	ASTM D 1525
Vicat softening temperature, B, upright	**220**	°C	ASTM D 1525
Coeff. of linear therm. expansion, parallel, flat	**51**	E-6/K	ASTM E 831
Coeff. of linear therm. expansion, parallel, on-edge	**53**	E-6/K	ASTM E 831
Coeff. of linear therm. expansion, parallel, upright	**53**	E-6/K	ASTM E 831
Coeff. of linear therm. expansion, normal, flat	**53**	E-6/K	ASTM E 831
Coeff. of linear therm. expansion, normal, on-edge	**52**	E-6/K	ASTM E 831
Coeff. of linear therm. expansion, normal, upright	**53**	E-6/K	ASTM E 831
Burning Behav. at thickness h, flat	**V-0**	class	UL 94
Burning Behav. at thickness h, on-edge	**V-0**	class	UL 94
Burning Behav. at thickness h, upright	**V-0**	class	UL 94
Thickness tested	**1.5**	mm	UL 94
Volume resistivity, flat	**6.24E12**	Ohm*m	ASTM D 257
Volume resistivity, on-edge	**1.26E13**	Ohm*m	ASTM D 257

S: These properties are reported by the producer according standards that are different to our defaults.

Characteristics

Processing
Additive Manufacturing

Delivery form
Monofilament

Special Characteristics
Ethylene Oxide (EtO) Sterilization, Steam sterilization, Gamma irradiation sterilization

Certifications
Food contact, Medical Grade, US Pharmacopeia Class VI Approved

Applications
Medical, Packaging

Regional Availability
North America, Europe, South and Central America