ULTEM™ Resin HU1110 - Asia

PEI — Saudi Basic Industries Corporation (SABIC)

Product Texts

Enhanced flow Polyetherimide (Tg 217C). ECO Conforming. For medical devices and pharmaceutical applications. Healthcare management of change; biocompatible (ISO 10993 or USP Class VI); food contact compliant; Steam, Gamma, EtO, and E-beam sterilizable.

UL Yellow Card Link E121562-100044748

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**21**	cm³/10min	ISO 1133
Temperature	**360**	°C	-
Load	**5**	kg	-
ASTM Data			
Melt Flow Index, MFI	**16**	g/10min	ASTM D 1238
Temperature	**337**	°C	-
Load	**6.6**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**3500**	MPa	ISO 527
Yield stress	**110**	MPa	ISO 527
Yield strain	**6**	%	ISO 527
Stress at break	**80**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**3300**	MPa	ISO 178
Charpy notched impact strength, +23°C	**5**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	**4**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**4**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**3720**	MPa	ASTM D 638
Tensile Strength at Yield	**110**	MPa	ASTM D 638
Tensile Strength at Break	**85**	MPa	ASTM D 638
Elongation at Yield	**7**	%	ASTM D 638
Elongation at Break	**70**	%	ASTM D 638
Flexural Modulus	**3420**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**56**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**210**	°C	ISO 75-1/-2
Vicat softening temperature, B	**200**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**205**	°C	ISO 306
Burning behav. at thickness h	**V-2**	class	IEC 60695-11-10
Thickness tested	**0.4**	mm	-
Burning behav. 5V at thickness h	**5VA**	class	IEC 60695-11-20
Thickness tested	**3.0**	mm	-
ASTM Data			
Vicat Temperature	**219**	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	**1.2**	%	Sim. to ISO 62
Humidity absorption	**0.65**	%	Sim. to ISO 62
Density	**1360**	kg/m³	ISO 1183
Density	**1360**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**150**	°C	-
Pre-drying - Time	**4 - 6**	h	-

Processing humidity	**≤0.02**	%	-
Melt temperature	**350 - 400**	°C	-
Mold temperature	**135 - 165**	°C	-
Zone 1	**330 - 400**	°C	-
Zone 2	**340 - 400**	°C	-
Zone 3	**345 - 400**	°C	-
Screw speed	**40 - 70**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Special Characteristics
Ethylene Oxide (EtO) Sterilization, Steam sterilization, Gamma irradiation sterilization, Electron beam (e-beam) sterilization

Certifications
Food contact, Food approval FDA 21 CFR, US Pharmacopeia Class VI Approved

Applications
Medical

Regional Availability
Asia Pacific