

**Product Texts**

ULTEM 3310TD resin is an amorphous, filled, near infra-red transparent polyetherimide (PEI) thermoplastic, offering a material with an unique combination of low CTE and high near infra-red transparency.

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	6.84	cm <sup>3</sup> /10min	ISO 1133
Temperature	337	°C	-
Load	6.7	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	10.3	g/10min	ASTM D 1238
Temperature	337	°C	-
Load	6.7	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	4900	MPa	ISO 527
Stress at break	67	MPa	ISO 527
Strain at break	1.6	%	ISO 527
Flexural modulus, 23°C	4900	MPa	ISO 178
Charpy impact strength, +23°C	21.1	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	4.1	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact strength, +23°C	36.5	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C	4.7	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Tensile Modulus	5000	MPa	ASTM D 638
Tensile Strength at Break	62	MPa	ASTM D 638
Elongation at Break	1.5	%	ASTM D 638
Flexural Modulus	5000	MPa	ASTM D 790
Flexural Strength	109	MPa	ASTM D 790
Izod Impact notched, 1/8 in	47	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	580	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	197	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	208	°C	ISO 75-1/-2
Vicat softening temperature, B	211	°C	ISO 306
<b>ASTM Data</b>			
Coefficient of Thermal Expansion, MD	39	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	40	E-6/K	ASTM D 696
DTUL @ 66 psi	206	°C	ASTM D 648
DTUL @ 264 psi	196	°C	ASTM D 648
Vicat Temperature	211	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Humidity absorption	0.077	%	Sim. to ISO 62
Density	1540	kg/m <sup>3</sup>	ISO 1183
Density	1550	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	135 - 150	°C	-
Pre-drying - Time	4 - 6	h	-
Processing humidity	≤0.02	%	-
Melt temperature	360 - 390	°C	-
Mold temperature	150 - 190	°C	-
Zone 1	350 - 370	°C	-
Zone 2	350 - 370	°C	-
Zone 3	350 - 380	°C	-

# ULTEM™ Resin 3310TD

PEI

Saudi Basic Industries Corporation (SABIC)

Nozzle temperature

350 - 380

°C

-

## Characteristics

### Processing

Injection Molding

### Special Characteristics

Heat stabilized or stable to heat, Transparent

### Features

Amorphous

### Applications

Electrical and Electronical

### Regional Availability

North America, Europe, Asia Pacific, South and Central America