

ULTEM™ HU1110 resin

Polyether Imide

SABIC Innovative Plastics

Message:

Enhanced flow Polyetherimide (Tg 217C). RoHS compliant. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO 10993 or USP Class VI), food contact compliant. EtO and steam sterilizable. UL94 V0 and 5VA listed.

General Information			
Features	Ethylene oxide disinfection		
	Good liquidity		
	Biocompatibility		
	Compliance of Food Exposure		
	Disinfect with steam		
Uses	Drug		
	Medical/nursing supplies		
Agency Ratings	ISO 10993		
	USP Class VI		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.36	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR)			ISO 1133
340°C/5.0 kg	12.0	cm ³ /10min	ISO 1133
360°C/5.0 kg	21.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 - 0.70	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	1.2	%	ISO 62
Equilibrium, 23°C, 50% RH	0.65	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	145	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3500	MPa	ISO 527-2/1
Tensile Stress (Yield)	110	MPa	ISO 527-2/5
Tensile Strain			ISO 527-2/5
Yield	6.0	%	ISO 527-2/5
Fracture	60	%	ISO 527-2/5
Flexural Modulus ¹	3300	MPa	ISO 178

Flexural Stress	140	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	10.0	mg	Internal method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ² (23°C)	5.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact ³			ISO 180/1A
-30°C	4.0	kJ/m ²	ISO 180/1A
23°C	4.0	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, unannealed, 100 mm span ⁴	200	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span ⁵	185	°C	ISO 75-2/Ae
1.8 MPa, unannealed, 64.0mm span ⁶	210	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	210	°C	ISO 306/A50
--	200	°C	ISO 306/B50
--	205	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	5.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flow: 23 to 150°C	5.0E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	5.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Horizontal: 23 to 150°C	5.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.26	W/m/K	ISO 8302
RTI Elec	170	°C	UL 746
RTI Imp	170	°C	UL 746
RTI	170	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	V-0		UL 94
3.00 mm	5VA		UL 94
Glow Wire Flammability Index (3.20 mm)	960	°C	IEC 60695-2-12
Oxygen Index	47	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	149	°C	
Drying Time	4.0 - 6.0	hr	
Drying Time, Maximum	24	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	332 - 399	°C	
Middle Temperature	338 - 399	°C	
Front Temperature	343 - 399	°C	

Nozzle Temperature	343 - 399	°C
Processing (Melt) Temp	349 - 399	°C
Mold Temperature	135 - 163	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.025 - 0.076	mm

NOTE

1.	2.0 mm/min
2.	80*10*4 sp=62mm
3.	80*10*4
4.	120*10*4 mm
5.	120*10*4 mm
6.	80*10*4 mm

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

