

ULTEM™ HU2100 resin

Polyether Imide

SABIC Innovative Plastics

Message:

10% Glass fiber filled, standard flow Polyetherimide (Tg 217C). US FDA and European Food Contact approved. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO 10993 or USP Class VI).

General Information			
UL YellowCard	E121562-502535	E121562-221093	
Filler / Reinforcement	Glass Fiber,10% Filler by Weight		
Features	Biocompatible		
	Food Contact Acceptable		
Uses	Medical/Healthcare Applications		
	Pharmaceuticals		
Agency Ratings	EU Food Contact, Unspecified Rating		
	FDA Food Contact, Unspecified Rating		
	ISO 10993		
	USP Class VI		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.34	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/3.8 kg)	5.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (360°C/5.0 kg)	9.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.60	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	1.0	%	
Equilibrium, 23°C, 50% RH	0.60	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	4680	MPa	ASTM D638
--	4500	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	114	MPa	ASTM D638
Yield	115	MPa	ISO 527-2/5
Break ³	115	MPa	ASTM D638
Break	115	MPa	ISO 527-2/5
Tensile Elongation			

Yield ⁴	6.0	%	ASTM D638
Yield	4.0	%	ISO 527-2/5
Break ⁵	6.0	%	ASTM D638
Break	4.0	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	5500	MPa	ASTM D790
-- ⁷	4500	MPa	ISO 178
Flexural Stress			
--	185	MPa	ISO 178
Yield, 50.0 mm Span ⁸	160	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	7.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
-30°C	53	J/m	
23°C	53	J/m	
Unnotched Izod Impact Strength ¹⁰			ISO 180/1U
-30°C	30	kJ/m ²	
23°C	30	kJ/m ²	
Instrumented Dart Impact (23°C, Total Energy)	10.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	205	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹¹	205	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	223	°C	ASTM D1525 ¹²
--	212	°C	ISO 306/B50
--	217	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	3.2E-5	cm/cm/°C	ASTM E831
Flow : 23 to 150°C	2.6E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 150°C	6.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec	170	°C	UL 746
RTI Imp	170	°C	UL 746
RTI Str	170	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Electric Strength (3.20 mm, in Oil)	15	kV/mm	IEC 60243-1
Comparative Tracking Index	150	V	IEC 60112
Injection	Nominal Value	Unit	
Drying Temperature	150	°C	
Drying Time	4.0 to 6.0	hr	

Suggested Max Moisture	0.020	%
Hopper Temperature	80.0 to 120	°C
Rear Temperature	340 to 395	°C
Middle Temperature	350 to 405	°C
Front Temperature	360 to 415	°C
Nozzle Temperature	350 to 405	°C
Processing (Melt) Temp	370 to 410	°C
Mold Temperature	140 to 180	°C

NOTE

1.	5.0 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4 sp=62mm
10.	80*10*4
11.	120*10*4 mm
12.	Rate B (120°C/h), Loading 2 (50 N)

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