

ULTEM™ UC1200 resin

Polyether Imide

SABIC Innovative Plastics Asia Pacific

Message:

12% carbon fiber reinforced Polyetherimide (Tg 217C). ECO Conforming. UL94 V0 listing in recognized colors.

General Information			
Filler / Reinforcement	Carbon Fiber, 12% Filler by Weight		
Features	ECO Compliant		
Agency Ratings	EU Eco		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.32	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	7.5	g/10 min	ASTM D1238
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.12 to 0.22	%	
Across Flow : 3.20 mm	0.30 to 0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	8140	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	131	MPa	
Break	131	MPa	
Tensile Elongation ³			ASTM D638
Yield	5.1	%	
Break	5.1	%	
Flexural Modulus			ASTM D790
100 mm Span ⁴	8270	MPa	
50.0 mm Span ⁵	7830	MPa	
Flexural Strength			ASTM D790
Break, 50.0 mm Span ⁶	221	MPa	
Break, 100 mm Span ⁷	193	MPa	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	37	J/m	ASTM D256
Unnotched Izod Impact (23°C)	420	J/m	ASTM D4812
Instrumented Dart Impact (23°C, Total Energy)	6.21	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	213	°C	
1.8 MPa, Unannealed, 3.20 mm	209	°C	

1.8 MPa, Unannealed, 6.40 mm	210	°C	
Vicat Softening Temperature	214	°C	ASTM D1525 ⁸
CLTE			ASTM E831
Flow : -40 to 40°C	1.4E-5	cm/cm/°C	
Flow : -20 to 150°C	1.4E-5	cm/cm/°C	
Transverse : -40 to 40°C	3.2E-5	cm/cm/°C	
Transverse : -20 to 150°C	4.0E-5	cm/cm/°C	
RTI Elec	105	°C	UL 746
RTI Imp	105	°C	UL 746
RTI Str	105	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.0E+5	ohms	ASTM D257
Volume Resistivity	4.0E+2	ohms · cm	ASTM D257
High Amp Arc Ignition (HAI)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Static Decay ⁹	10	msec	FTMS 101B
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.57 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	149	°C	
Drying Time	4.0 to 6.0	hr	
Drying Time, Maximum	24	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	360 to 404	°C	
Middle Temperature	371 to 421	°C	
Front Temperature	382 to 427	°C	
Nozzle Temperature	377 to 421	°C	
Processing (Melt) Temp	382 to 427	°C	
Mold Temperature	135 to 163	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	2.6 mm/min		
5.	1.3 mm/min		
6.	1.3 mm/min		
7.	2.6 mm/min		
8.	Rate B (120°C/h), Loading 2 (50 N)		

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

