

ULTEM™ 2300 resin

Polyether Imide

SABIC Innovative Plastics

Message:

30% Glass fiber filled, standard flow Polyetherimide (Tg 217C). ECO Conforming, UL94 V0 and 5VA listing. NSF 51 listing, WRAS certification, KTW certification in recognized colors.

General Information			
UL YellowCard	E45587-236984		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	Comply with ECO		
Agency Ratings	EU Eco		
	NSF 51		
	WRAS not rated		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.51	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	5.0	g/10 min	ASTM D1238
Molding Shrinkage			Internal method
Flow: 3.20mm	0.20 - 0.40	%	Internal method
Transverse flow: 3.20mm	0.20 - 0.40	%	Internal method
Water Absorption			ASTM D570
24 hr	0.16	%	ASTM D570
Equilibrium, 23°C	0.90	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	114		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	9310	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	169	MPa	ASTM D638
Fracture	159	MPa	ASTM D638
Tensile Elongation ³ (Break)	3.0	%	ASTM D638
Flexural Modulus ⁴ (100 mm Span)	8960	MPa	ASTM D790
Flexural Strength ⁵ (Break, 100 mm Span)	228	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	85	J/m	ASTM D256
Unnotched Izod Impact (23°C)	430	J/m	ASTM D4812
Reverse Notch Izod Impact (3.20 mm)	490	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	212	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	210	°C	ASTM D648
Vicat Softening Temperature	228	°C	ASTM D1525 ⁶
CLTE - Flow (-20 to 150°C)	2.0E-5	cm/cm/°C	ASTM E831
RTI Elec	180	°C	UL 746
RTI Imp	170	°C	UL 746
RTI	180	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	3.0E+16	ohms · cm	ASTM D257
Dielectric Strength			ASTM D149
1.60 mm, in Air	25	kV/mm	ASTM D149
1.60 mm, in Oil	30	kV/mm	ASTM D149
Dielectric Constant (1 kHz)	3.70		ASTM D150
Dissipation Factor			ASTM D150
1 kHz	1.5E-3		ASTM D150
2.45 GHz	5.3E-3		ASTM D150
Arc Resistance ⁷	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 4		UL 746
High Amp Arc Ignition (HAI)	PLC 4		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.254 mm	V-0		UL 94
1.22 mm	5VA		UL 94
Oxygen Index	50	%	ASTM D2863
NBS Smoke Density - Flaming, Ds, 4 min	1.60		ASTM E662
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.	5.0 mm/min	
2.	Type 1, 5.0 mm/min	
3.	Type 1, 5.0 mm/min	
4.	2.6 mm/min	
5.	2.6 mm/min	
6.	标准 B (120°C/h), 载荷2 (50N)	
7.	Tungsten electrode	

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