ULTEM™ RESIN AUR202G6

DESCRIPTION

30% Milled glass filled, enhanced flow Polyetherimide (Tg 217C). ECO Conforming, UL94 V0 and 5VA listing. ISCC+ certified renewable bio-based solutions are available for this grade via differentiated color nomenclature.

GENERAL INFORMATION	
Features	Flame Retardant, Chemical Resistance, Low Warpage, Low Smoke and Toxicity, Amorphous, Non Cl/Br flame retardant, Low ionics/Outgassing/Liquid particle count, Dimensional stability, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Milled Glass Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive EV Batteries
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20240530

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	108	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	4	%	ASTM D638
Tensile Modulus, 50 mm/min	5231	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	173.2	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	5313	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Izod Impact, Reverse Notched, 3.2 mm	309	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	4.9	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	211	°C	ASTM D648
CTE, -40°C to 150°C, flow	2.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 150°C, xflow	2.7E-05	1/°C	ISO 11359-2
Relative Temp Index, Elec [2]	170	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	170	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	170	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.51	-	ASTM D792
Melt Flow Rate, 337°C/6.6 kgf	10.1	g/10 min	ASTM D1238
Water Absorption, (23°C/24hrs)	0.18	%	ASTM D570
Water Absorption, (23°C/Saturated)	0.98	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm [3]	0.3 – 0.4	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 3.2 mm [3]	0.45 – 0.55	%	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-104631586	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Drying Time (Cumulative)	24	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	350 – 400	°C	
Nozzle Temperature	345 – 400	°C	
Front - Zone 3 Temperature	345 – 400	°C	
Middle - Zone 2 Temperature	340 – 400	°C	
Rear - Zone 1 Temperature	330 – 400	°C	
Mold Temperature	135 – 165	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER