ULTEM™ RESIN SF2250

REGION ASIA

DESCRIPTION

20% Glass fiber filled, super high flow for thin wall application.

TYPICAL PROPERTY VALUES

Revision 20260623

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	162	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D638
Tensile Modulus, 5 mm/min	8900	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	197	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7260	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	157	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
Flexural Modulus, 2 mm/min	7150	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	89	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, -40°C to 150°C, flow	1.4E-05	1/°C	ASTM E831
CTE, -40°C to 150°C, xflow	5.4E-05	1/°C	ASTM E831
CTE, 23°C to 150°C, flow	1.8E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	5.9E-05	1/°C	ISO 11359-2
HDT, 1.82 MPa, 3.2mm, unannealed	203	°C	ASTM D648
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	208	°C	ISO 75/Ae
Relative Temp Index, Elec [2]	105	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	105	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	105	°C	UL 746B
PHYSICAL [1]			
Specific Gravity	1.44	-	ASTM D792
Density	1.44	g/cm³	ISO 1183
Melt Flow Rate, 337°C/6.6 kgf	19.7	g/10 min	ASTM D1238
Melt Volume Rate			
345°C/10.0 kg	40	cm³/10 min	ISO 1133
Water Absorption, (23°C/24hrs)	0.17	%	ISO 62-1
Water Absorption, (23°C/saturated)	1.01	%	ISO 62-1
Moisture Absorption, (23°C/50% RH/24hrs)	0.07	%	ISO 62-4
Mold Shrinkage, flow [3]	0.46	%	SABIC method
Mold Shrinkage, xflow [3]	0.54	%	SABIC method
ELECTRICAL [1]			
Surface Resistivity	2.3E+16	Ω/sq	ASTM D257

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Volume Resistivity	7.2E+16	Ω.cm	ASTM D257
Dielectric Strength, in oil, 0.8 mm	33.7	kV/mm	ASTM D149
Dielectric Strength, in oil, 1.6 mm	23.8	kV/mm	ASTM D149
Dielectric Strength, in oil, 3.2 mm	15.1	kV/mm	ASTM D149
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E207780-100116343	-	-
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.

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