ULTEM™ RESIN 2210F

REGION AMERICAS

DESCRIPTION

20% Glass fiber filled, enhanced flow Polyetherimide (Tg 217C). ECO Conforming. US FDA Food Contact compliant in recognized colors.

INDUSTRY	SUB INDUSTRY
Automotive	Heavy Truck, Automotive Under the Hood, Aerospace, Motorcycle, Recreational/Specialty Vehicles
Building and Construction	Building Component, Water Management
Consumer	Consumer Goods, Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance, Furniture
Electrical and Electronics	Energy Management, Drone Solutions, Mobile Phone - Computer - Tablets, Circuit Boards/Additives, Lighting, Printer Copier, Speaker - Earphone, Wireless Communication
Hygiene and Healthcare	Personal and Professional Hygiene, Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Industrial	Electrical, Material Handling, Textile, Eyewear
Mass Transportation	Rail
Packaging	Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	139	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	140	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2	%	ASTM D638
Tensile Modulus, 5 mm/min	6890	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	227	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6890	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	140	MPa	ISO 527
Tensile Stress, break, 5 mm/min	140	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	6800	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	210	MPa	ISO 178
Flexural Modulus, 2 mm/min	6500	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	475	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	13	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	5	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	226	°C	ASTM D1525
HDT, 1.82 MPa, 6.4 mm, unannealed	211	°C	ASTM D648
Vicat Softening Temp, Rate B/50	212	°C	ISO 306

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/120	218	°C	ISO 306
Relative Temp Index, Elec [1]	170	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	170	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	170	°C	UL 746B
PHYSICAL			
Density	1.42	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	1	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.55	%	ISO 62
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 1	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 4	≥3	mm	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D495
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E121562-221093	-	-
UL Recognized, 94-5VA Flame Class Rating	≥1.9	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥0.41	mm	UL 94

(1) 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.

DISCLAIMER