ULTEM™ RESIN DU242

DESCRIPTION

Enhanced low temperature impact, high flow Polyetherimide blend. ECO Conforming.

GENERAL INFORMATION	
Features	Flame Retardant, Chemical Resistance, High Flow, Hydrolytic Stability, Low Smoke and Toxicity, Amorphous, Low Shrinkage, Electroplatable, Creep resistant, Dimensional stability, High stiffness/Strength, High temperature resistance, Low temperature impact, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

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	74	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	67	%	ASTM D638
Tensile Modulus, 5 mm/min	2580	MPa	ASTM D638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	112	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	2510	MPa	ASTM D790
IMPACT			
Izod Impact, notched, 23°C	181	J/m	ASTM D256
Izod Impact, Reverse Notched, 3.2 mm	2045	J/m	ASTM D256
THERMAL			
Relative Temp Index, Elec	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
HDT, 1.82 MPa, 6.4 mm, unannealed	160	°C	ASTM D648
PHYSICAL			
Mold Shrinkage, flow, 24 hrs [(1)]	0.5 – 0.7	%	ASTM D955

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs [1]	0.5 – 0.7	%	ASTM D955
Specific Gravity	1.24	-	ASTM D792
Melt Flow Rate, 337°C/6.6 kgf	30	g/10 min	ASTM D1238
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-647600	-	-
UL Recognized, 94V-0 Flame Class Rating	1.0	mm	UL 94
INJECTION MOLDING [3]			
Drying Temperature	135	°C	
Drying Time	4 – 6	Hrs	
Drying Time (Cumulative)	12	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	330 – 355	°C	
Nozzle Temperature	325 – 350	°C	
Front - Zone 3 Temperature	330 – 355	°C	
Middle - Zone 2 Temperature	320 – 345	°C	
Rear - Zone 1 Temperature	310 – 330	°C	
Mold Temperature	95 – 135	°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) 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.

(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) 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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

DISCLAIMER