

ULTEM™ Resin ATX100F Americas: OBSOLETE

Higher impact, high flow Polyetherimide blend. ECO Conforming, UL94 HB Listing. US FDA Food Contact Compliant.

| YPICAL PROPERTIES ¹ | TYPICAL VALUE | Unit | Standard |
|---|---------------|-----------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 700 | kgf/cm² | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 80 | % | ASTM D 638 |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span | 1080 | kgf/cm² | ASTM D 790 |
| Flexural Modulus, 2.6 mm/min, 100 mm span | 25800 | kgf/cm² | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 212 | cm-kgf/cm | ASTM D 4812 |
| Izod Impact, notched, 23°C | 43 | cm-kgf/cm | ASTM D 256 |
| THERMAL | | | |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 157 | °C | ASTM D 648 |
| Relative Temp Index, Elec | 115 | °C | UL 746B |
| Relative Temp Index, Mech w/impact | 115 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact | 115 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.21 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm (5) | 0.5 - 0.7 | % | SABIC Method |
| Melt Flow Rate, 295°C/6.6 kgf | 6 | g/10 min | ASTM D 1238 |
| ELECTRICAL | | | |
| Hot Wire Ignition (PLC) | 1 | PLC Code | UL 746A |
| High Ampere Arc Ign, surface {PLC} | 0 | PLC Code | UL 746A |
| Comparative Tracking Index (UL) {PLC} | 3 | PLC Code | UL 746A |
| FLAME CHARACTERISTICS | | | |
| UL Recognized, 94HB Flame Class Rating (3) | 0.76 | mm | UL 94 |

Source GMD, last updated:

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⁽¹⁾ Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

⁽²⁾ Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) 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.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.



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| PROCESSING PARAMETERS | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| Injection Molding | | |
| 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 |

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