



**ULTEM™ Resin AR9300**  
**Americas: COMMERCIAL**

30% Glass fiber filled, standard flow Polyetherimide (Tg 217C). Meets FAR 25.853 and OSU 65/65 with low toxicity, smoke, and flame evolution. ECO Conforming.

| TYPICAL PROPERTIES <sup>1</sup>               | TYPICAL VALUE | Unit                  | Standard     |
|-----------------------------------------------|---------------|-----------------------|--------------|
| <b>MECHANICAL</b>                             |               |                       |              |
| Tensile Stress, brk, Type I, 5 mm/min         | 1580          | kgf/cm <sup>2</sup>   | ASTM D 638   |
| Tensile Strain, brk, Type I, 5 mm/min         | 3             | %                     | ASTM D 638   |
| Tensile Modulus, 5 mm/min                     | 91300         | kgf/cm <sup>2</sup>   | ASTM D 638   |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span | 2460          | kgf/cm <sup>2</sup>   | ASTM D 790   |
| Flexural Modulus, 2.6 mm/min, 100 mm span     | 98400         | kgf/cm <sup>2</sup>   | ASTM D 790   |
| <b>IMPACT</b>                                 |               |                       |              |
| Izod Impact, notched, 23°C                    | 11            | cm-kgf/cm             | ASTM D 256   |
| Izod Impact, Reverse Notched, 3.2 mm          | 54            | cm-kgf/cm             | ASTM D 256   |
| <b>THERMAL</b>                                |               |                       |              |
| HDT, 1.82 MPa, 6.4 mm, unannealed             | 212           | °C                    | ASTM D 648   |
| <b>PHYSICAL</b>                               |               |                       |              |
| Specific Gravity                              | 1.49          | -                     | ASTM D 792   |
| Mold Shrinkage, flow, 3.2 mm (5)              | 0.2 - 0.4     | %                     | SABIC Method |
| Melt Flow Rate, 337°C/6.6 kgf                 | 4.2           | g/10 min              | ASTM D 1238  |
| <b>FLAME CHARACTERISTICS</b>                  |               |                       |              |
| FAA Flammability, FAR 25.853 A/B              | NATURAL       | -                     | FAR 25.853   |
| OSU total heat release (2 minute test)        | 5             | kW-min/m <sup>2</sup> | FAR 25.853   |
| OSU peak heat release rate (5 minute test)    | 40            | kW/m <sup>2</sup>     | FAR 25.853   |
| Vertical Burn a (60s) passes at               | 0             | sec                   | FAR 25.853   |
| Vertical Burn b (12s) passes at               | 0             | sec                   | FAR 25.853   |
| NBS Smoke Density, Flaming, Dmax              | 5             | -                     | ASTM E 662   |
| NBS Smoke Density, Flaming, Ds 1.5 min        | 0             | -                     | ASTM E 662   |
| NBS Smoke Density, Flaming, Ds 4 min          | 5             | -                     | ASTM E 662   |





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| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 150           | °C   |
| Drying Time                 | 4 - 6         | hrs  |
| Drying Time (Cumulative)    | 24            | hrs  |
| Maximum Moisture Content    | 0.02          | %    |
| Melt Temperature            | 365 - 390     | °C   |
| Nozzle Temperature          | 360 - 380     | °C   |
| Front - Zone 3 Temperature  | 365 - 390     | °C   |
| Middle - Zone 2 Temperature | 355 - 375     | °C   |
| Rear - Zone 1 Temperature   | 345 - 365     | °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   |

