

# ULTEM™ RESIN 9075

REGION AMERICAS

## DESCRIPTION

High flow Polyetherimide blend. Meets FAR 25.853 and OSU 65/65 with low toxicity, smoke, and flame evolution. ECO Conforming.

ISCC+ certified renewable bio-based solutions are available for this grade via differentiated color nomenclature.

| INDUSTRY            | SUB INDUSTRY |
|---------------------|--------------|
| Automotive          | Aerospace    |
| Mass Transportation | Rail         |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                                    | TYPICAL VALUES | UNITS     | TEST METHODS |
|-----------------------------------------------|----------------|-----------|--------------|
| <b>MECHANICAL</b>                             |                |           |              |
| Tensile Stress, yld, Type I, 5 mm/min         | 96             | MPa       | ASTM D638    |
| Tensile Strain, brk, Type I, 5 mm/min         | 85             | %         | ASTM D638    |
| Tensile Modulus, 5 mm/min                     | 3300           | MPa       | ASTM D638    |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span | 144            | MPa       | ASTM D790    |
| Flexural Stress, brk, 2.6 mm/min, 100 mm span | 141            | MPa       | ASTM D790    |
| Flexural Modulus, 2.6 mm/min, 100 mm span     | 3240           | MPa       | ASTM D790    |
| <b>IMPACT</b>                                 |                |           |              |
| Izod Impact, notched, 23°C                    | 69             | J/m       | ASTM D256    |
| Izod Impact, Reverse Notched, 3.2 mm          | 2082           | J/m       | ASTM D256    |
| Gardner, 23°C                                 | 35             | J         | ASTM D3029   |
| <b>THERMAL</b>                                |                |           |              |
| HDT, 1.82 MPa, 6.4 mm, unannealed             | 188            | °C        | ASTM D648    |
| <b>PHYSICAL</b>                               |                |           |              |
| Specific Gravity                              | 1.3            | -         | ASTM D792    |
| Mold Shrinkage, flow, 3.2 mm                  | 0.5 – 0.7      | %         | SABIC method |
| Mold Shrinkage, xflow, 3.2 mm                 | 0.5 – 0.7      | %         | SABIC method |
| Melt Flow Rate, 295°C/6.6 kgf                 | 2.4            | g/10 min  | ASTM D1238   |
| Halogen Content                               | 0              | %         | SABIC method |
| <b>FLAME CHARACTERISTICS</b>                  |                |           |              |
| FAA Flammability, FAR 25.853 A/B              | SECT A-1       | -         | FAR 25.853   |
| OSU total heat release (2 minute test)        | 10             | kW-min/m² | FAR 25.853   |
| Vertical Burn a (60s) passes at               | 1              | Seconds   | FAR 25.853   |
| Vertical Burn b (12s) passes at               | 0              | Seconds   | FAR 25.853   |
| <b>INJECTION MOLDING</b>                      |                |           |              |
| Drying Temperature                            | 135 – 145      | °C        |              |
| Drying Time                                   | 4 – 6          | Hrs       |              |
| Drying Time (Cumulative)                      | 10             | Hrs       |              |
| Maximum Moisture Content                      | 0.02           | %         |              |
| Melt Temperature                              | 350 – 370      | °C        |              |

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CHEMISTRY THAT MATTERS™

| PROPERTIES                  | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Nozzle Temperature          | 350 – 370      | °C    |              |
| Front - Zone 3 Temperature  | 350 – 370      | °C    |              |
| Middle - Zone 2 Temperature | 345 – 365      | °C    |              |
| Rear - Zone 1 Temperature   | 340 – 360      | °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    |              |
| PROFILE EXTRUSION           |                |       |              |
| Drying Temperature          | 130 – 140      | °C    |              |
| Drying Time                 | 4 – 6          | Hrs   |              |
| Maximum Moisture Content    | 0.02           | %     |              |
| Melt Temperature            | 295 – 330      | °C    |              |
| Barrel - Zone 1 Temperature | 280 – 300      | °C    |              |
| Barrel - Zone 2 Temperature | 295 – 320      | °C    |              |
| Barrel - Zone 3 Temperature | 305 – 330      | °C    |              |
| Barrel - Zone 4 Temperature | 310 – 335      | °C    |              |
| Hopper Temperature          | 80 – 100       | °C    |              |
| Adapter Temperature         | 285 – 335      | °C    |              |
| Die Temperature             | 275 – 330      | °C    |              |
| Calibrator Temperature      | 140 – 170      | °C    |              |
| Calibrator 2 Temperature    | 90 – 130       | °C    |              |

### 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.

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