

# ULTEM™ RESIN AUT195

REGION EUROPE

## DESCRIPTION

High flow Polyetherimide blend for automotive lighting applications where highly metallized, reflective surfaces are required. Haze onset temperature of 195°C (SABIC test method).

| INDUSTRY   | SUB INDUSTRY              |
|------------|---------------------------|
| Automotive | Automotive Under the Hood |

## 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       | 70             | %                       | ASTM D638    |
| Tensile Modulus, 1 mm/min                   | 3000           | MPa                     | ISO 527      |
| Flexural Modulus, 2 mm/min                  | 3100           | MPa                     | ISO 178      |
| <b>IMPACT</b>                               |                |                         |              |
| Izod Impact, notched 80*10*4 +23°C          | 5              | kJ/m <sup>2</sup>       | ISO 180/1A   |
| Izod Impact, notched 80*10*4 -30°C          | 5              | kJ/m <sup>2</sup>       | ISO 180/1A   |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm  | 4              | kJ/m <sup>2</sup>       | ISO 179/1eA  |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm | 4              | kJ/m <sup>2</sup>       | ISO 179/1eA  |
| <b>THERMAL</b>                              |                |                         |              |
| Thermal Conductivity                        | 0.23           | W/m·°C                  | ISO 8302     |
| CTE, 23°C to 150°C, flow                    | 6.E-05         | 1/°C                    | ISO 11359-2  |
| CTE, 23°C to 150°C, xflow                   | 6.E-05         | 1/°C                    | ISO 11359-2  |
| Vicat Softening Temp, Rate B/120            | 205            | °C                      | ISO 306      |
| HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm     | 195            | °C                      | ISO 75/Be    |
| HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm     | 180            | °C                      | ISO 75/Ae    |
| Metallized Haze Onset                       | 195            | °C                      | SABIC method |
| <b>PHYSICAL</b>                             |                |                         |              |
| Mold Shrinkage on Tensile Bar, xflow        | 0.5 – 0.7      | %                       | SABIC method |
| Melt Flow Rate, 337°C/6.6 kgf               | 24             | g/10 min                | ASTM D1238   |
| Density                                     | 1.27           | g/cm <sup>3</sup>       | ISO 1183     |
| Water Absorption, (23°C/saturated)          | 0.9            | %                       | ISO 62-1     |
| Moisture Absorption (23°C / 50% RH)         | 0.5            | %                       | ISO 62       |
| Melt Volume Rate, MVR at 340°C/5.0 kg       | 16             | cm <sup>3</sup> /10 min | ISO 1133     |
| <b>INJECTION MOLDING</b>                    |                |                         |              |
| Drying Temperature                          | 130 – 140      | °C                      |              |
| Drying Time                                 | 3 – 4          | Hrs                     |              |
| Melt Temperature                            | 340 – 380      | °C                      |              |
| Nozzle Temperature                          | 340 – 360      | °C                      |              |
| Front - Zone 3 Temperature                  | 340 – 360      | °C                      |              |

| PROPERTIES                  | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Middle - Zone 2 Temperature | 330 – 350      | °C    |              |
| Rear - Zone 1 Temperature   | 320 – 340      | °C    |              |
| Hopper Temperature          | 80 – 100       | °C    |              |
| Mold Temperature            | 125 – 140      | °C    |              |

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