

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 195C (SABIC test method).

TYPICAL PROPERTY VALUES

Revision 20170913

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|-------------------------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 96 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 70 | % | ASTM D 638 |
| Tensile Modulus, 1 mm/min | 3000 | MPa | ISO 527 |
| Flexural Modulus, 2 mm/min | 3100 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, notched 80*10*4 +23°C | 5 | kJ/m ² | ISO 180/1A |
| Izod Impact, notched 80*10*4 -30°C | 5 | kJ/m ² | ISO 180/1A |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm | 4 | kJ/m ² | ISO 179/1eA |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm | 4 | kJ/m ² | ISO 179/1eA |
| THERMAL | | | |
| 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 |
| PHYSICAL | | | |
| Mold Shrinkage on Tensile Bar, xflow (2) (5) | 0.5 – 0.7 | % | SABIC method |
| Melt Flow Rate, 337°C/6.6 kgf | 24 | g/10 min | ASTM D 1238 |
| Density | 1.27 | g/cm ³ | ISO 1183 |
| Water Absorption, (23°C/sat) | 0.9 | % | ISO 62 |
| Moisture Absorption (23°C / 50% RH) | 0.5 | % | ISO 62 |
| Melt Volume Rate, MVR at 340°C/5.0 kg | 16 | cm ³ /10 min | ISO 1133 |
| INJECTION MOLDING | | | |
| Drying Temperature | 130 – 140 | °C | |



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|-----------------------------|----------------|-------|--------------|
| Drying Time | 3 – 4 | hrs | |
| Melt Temperature | 340 – 380 | °C | |
| Nozzle Temperature | 340 – 360 | °C | |
| Front - Zone 3 Temperature | 340 – 360 | °C | |
| 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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