

ULTEM™ RESIN AUT200M

REGION EUROPE

DESCRIPTION

High flow Polyetherimide (Tg 217C) with internal mold release.. Very low outgassing and plateau, for automotive lighting applications where highly metallized, reflective surfaces are required. Haze onset temperature of 204C (SABIC IP method).

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

TYPICAL PROPERTY VALUES

Revision 20230607

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------------|--------------|
| MECHANICAL | | | |
| Taber Abrasion, CS-17, 1 kg | 10 | mg/1000cy | SABIC method |
| Tensile Stress, yield, 50 mm/min | 105 | MPa | ISO 527 |
| Tensile Stress, break, 50 mm/min | 85 | MPa | ISO 527 |
| Tensile Strain, yield, 50 mm/min | 6 | % | ISO 527 |
| Tensile Strain, break, 50 mm/min | 60 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 3300 | MPa | ISO 527 |
| Flexural Stress, yield, 2 mm/min | 160 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 3300 | MPa | ISO 178 |
| Ball Indentation Hardness, H358/30 | 140 | MPa | ISO 2039-1 |
| IMPACT | | | |
| Izod Impact, unnotched 80*10*4 +23°C | NB | kJ/m ² | ISO 180/1U |
| Izod Impact, unnotched 80*10*4 -30°C | NB | kJ/m ² | ISO 180/1U |
| 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 |
| THERMAL | | | |
| Thermal Conductivity | 0.24 | W/m·°C | ISO 8302 |
| CTE, 23°C to 150°C, flow | 5.E-05 | 1/°C | ISO 11359-2 |
| CTE, 23°C to 150°C, xflow | 5.E-05 | 1/°C | ISO 11359-2 |
| Vicat Softening Temp, Rate A/50 | 215 | °C | ISO 306 |
| Vicat Softening Temp, Rate B/50 | 211 | °C | ISO 306 |
| Vicat Softening Temp, Rate B/120 | 212 | °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 | 190 | °C | ISO 75/Ae |
| Metallized Haze Onset | 204 | °C | SABIC method |
| PHYSICAL | | | |
| Mold Shrinkage on Tensile Bar, flow | 0.5 – 0.7 | % | SABIC method |
| Density | 1.27 | g/cm ³ | ISO 1183 |
| Water Absorption, (23°C/saturated) | 1.25 | % | ISO 62-1 |
| Moisture Absorption (23°C / 50% RH) | 0.7 | % | ISO 62 |
| Melt Volume Rate, MVR at 340°C/5.0 kg | 13 | cm ³ /10 min | ISO 1133 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| INJECTION MOLDING | | | |
| Drying Temperature | 150 | °C | |
| Drying Time | 4 – 6 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 370 – 410 | °C | |
| Nozzle Temperature | 350 – 405 | °C | |
| Front - Zone 3 Temperature | 360 – 415 | °C | |
| Middle - Zone 2 Temperature | 350 – 405 | °C | |
| Rear - Zone 1 Temperature | 340 – 395 | °C | |
| Hopper Temperature | 80 – 120 | °C | |
| Mold Temperature | 140 – 180 | °C | |

MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.