

ULTEM™ RESIN CRS5311

REGION ASIA

DESCRIPTION

30% Glass fiber filled, enhanced flow Polyetherimide copolymer (Tg 225C) with enhanced chemical resistance to strong acids, bases, aromatics, and ketones. ECO conforming, UL94 V0 and 5VA listing.

TYPICAL PROPERTY VALUES

Revision 20180905

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|----------|--------------|
| MECHANICAL | | | |
| Tensile Stress, brk, Type I, 5 mm/min | 165 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 3 | % | ASTM D 638 |
| Tensile Modulus, 5 mm/min | 8960 | MPa | ASTM D 638 |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span | 234 | MPa | ASTM D 790 |
| Flexural Modulus, 2.6 mm/min, 100 mm span | 8960 | MPa | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 96 | J/m | ASTM D 256 |
| Izod Impact, Reverse Notched, 3.2 mm | 507 | J/m | ASTM D 256 |
| Izod Impact, notched (natural, tints) | 160 | J/m | ASTM D 256 |
| THERMAL | | | |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 218 | °C | ASTM D 648 |
| Relative Temp Index, Elec | 105 | °C | UL 746B |
| Relative Temp Index, Mech w/impact | 105 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact | 105 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.52 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm | 0.2 – 0.4 | % | SABIC method |
| Melt Flow Rate, 337°C/6.6 kgf | 4 | g/10 min | ASTM D 1238 |
| ELECTRICAL | | | |
| Arc Resistance, Tungsten {PLC} | 5 | PLC Code | ASTM D 495 |
| Hot Wire Ignition {PLC} | 0 | PLC Code | UL 746A |
| High Voltage Arc Track Rate {PLC} | 3 | PLC Code | UL 746A |
| High Ampere Arc Ign, surface {PLC} | 4 | PLC Code | UL 746A |
| Comparative Tracking Index (UL) {PLC} | 4 | PLC Code | UL 746A |
| FLAME CHARACTERISTICS | | | |
| UL Recognized, 94V-0 Flame Class Rating | 1.5 | mm | UL 94 |
| UL Recognized, 94-5VA Rating | 1.5 | mm | UL 94 |
| INJECTION MOLDING | | | |
| 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 | |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| 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 | |

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.