# ULTEM™ RESIN SF2255

REGION ASIA

## DESCRIPTION

High flow Ultem for thin wall application

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Electrical and Electronics | Electrical Devices and Displays, Electrical Components and Infrastructure |
| Industrial | Electronic Material Handling, Electronic Material |

## TYPICAL PROPERTY VALUES

Revision 20190717

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, brk, Type I, 5 mm/min | 148 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 1.8 | % | ASTM D 638 |
| Tensile Modulus, 5 mm/min | 10140 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 169 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 8090 | MPa | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 76 | J/m | ASTM D 256 |
| THERMAL | | | |
| HDT, 1.82 MPa, 3.2mm, unannealed | 203 | °C | ASTM D 648 |
| CTE, -40°C to 150°C, flow | 1.43E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 150°C, xflow | 5.5E-05 | 1/°C | ASTM E 831 |
| Relative Temp Index, Elec [1] | 105 | °C | UL 746B |
| Relative Temp Index, Mech w/impact [1] | 105 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact [1] | 105 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.44 | - | ASTM D 792 |
| Mold Shrinkage, flow | 0.3 | % | SABIC method |
| Mold Shrinkage, xflow | 0.53 | % | SABIC method |
| Melt Flow Rate, 337°C/6.6 kgf | 15.4 | g/10 min | ASTM D 1238 |
| Water Absorption, 23°C/24hrs | 0.06 | % | ISO 62-1 |
| Melt Volume Rate, MVR at 345°C/10.0 kg | 34 | cm³/10 min | ISO 1133 |
| FLAME CHARACTERISTICS [1] | | | |
| UL Yellow Card Link | E207780-102158299 | - | - |
| UL Recognized, 94V-0 Flame Class 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 | % | |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Melt Temperature | 350 – 400 | °C | |
| Nozzle Temperature | 345 – 400 | °C | |
| Front - Zone 3 Temperature | 345 – 400 | °C | |
| Middle - Zone 2 Temperature | 340 – 400 | °C | |
| Rear - Zone 1 Temperature | 330 – 400 | °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 | |

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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