# ULTEM™ RESIN 4211

REGION ASIA

## DESCRIPTION

20% Glass fiber filled and PTFE filled, standard flow Polyetherimide (Tg 217C). ECO Conforming.

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Consumer | Personal Accessory, Home Appliance, Personal Recreation, Commercial Appliance |
| Electrical and Electronics | Electrical Devices and Displays, Electrical Components and Infrastructure |
| Industrial | Electronic Material Handling, Electronic Material |
| Packaging | Food & Beverage |

## TYPICAL PROPERTY VALUES

Revision 20190717

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| **MECHANICAL** | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 129 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 3 | % | ASTM D 638 |
| Flexural Stress, brk, 2.6 mm/min, 100 mm span | 193 | MPa | ASTM D 790 |
| Flexural Modulus, 2.6 mm/min, 100 mm span | 7100 | MPa | ASTM D 790 |
| **IMPACT** | | | |
| Izod Impact, Reverse Notched, 3.2 mm | 437 | J/m | ASTM D 256 |
| **THERMAL** | | | |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 212 | °C | ASTM D 648 |
| 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 | 1.48 | - | ASTM D 792 |
| Melt Flow Rate, 337°C/6.6 kgf | 10.3 | g/10 min | ASTM D 1238 |
| **FLAME CHARACTERISTICS** [1] | | | |
| UL Yellow Card Link | E121562-524104 | - | - |
| UL Recognized, 94V-0 Flame Class Rating | 1.5 | mm | UL 94 |
| **INJECTION MOLDING** | | | |
| Drying Temperature | 135 | °C | |
| Drying Time | 4 – 6 | hrs | |
| Drying Time (Cumulative) | 10 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 350 – 370 | °C | |
| Nozzle Temperature | 350 – 370 | °C | |
| Front - Zone 3 Temperature | 350 – 370 | °C | |
| Middle - Zone 2 Temperature | 345 – 365 | °C | |
| Rear - Zone 1 Temperature | 340 – 360 | °C | |

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