

ULTEM™ RESIN 2410

REGION ASIA

DESCRIPTION

40% Glass fiber filled, enhanced flow Polyetherimide (Tg 217C). ECO Conforming, UL94 V0 and 5VA listing.

ISCC+ certified renewable bio-based solutions are available for this grade via differentiated color nomenclature.

| INDUSTRY | SUB INDUSTRY |
|----------------------------|---|
| Automotive | Heavy Truck, Automotive Under the Hood, Aerospace, Motorcycle, Recreational/Specialty Vehicles |
| Building and Construction | Building Component, Water Management |
| Consumer | Consumer Goods, Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance, Furniture |
| Electrical and Electronics | Energy Management, Drone Solutions, Mobile Phone - Computer - Tablets, Circuit Boards/Additives, Lighting, Printer Copier, Speaker - Earphone, Wireless Communication |
| Hygiene and Healthcare | Personal and Professional Hygiene, Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing |
| Industrial | Electrical, Material Handling, Textile, Eyewear |
| Mass Transportation | Rail |
| Packaging | Industrial Packaging |

TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 186 | MPa | ASTM D638 |
| Tensile Stress, brk, Type I, 5 mm/min | 179 | MPa | ASTM D638 |
| Tensile Strain, brk, Type I, 5 mm/min | 2.5 | % | ASTM D638 |
| Tensile Modulus, 5 mm/min | 11720 | MPa | ASTM D638 |
| Flexural Stress, brk, 2.6 mm/min, 100 mm span | 241 | MPa | ASTM D790 |
| Flexural Modulus, 2.6 mm/min, 100 mm span | 11720 | MPa | ASTM D790 |
| Hardness, Rockwell M | 114 | - | ASTM D785 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 427 | J/m | ASTM D4812 |
| Izod Impact, notched, 23°C | 112 | J/m | ASTM D256 |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 234 | °C | ASTM D1525 |
| HDT, 0.45 MPa, 6.4 mm, unannealed | 215 | °C | ASTM D648 |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 212 | °C | ASTM D648 |
| CTE, -20°C to 150°C, flow | 1.4E-05 | 1/°C | ASTM E831 |
| CTE, -40°C to 150°C, flow | 1.4E-05 | 1/°C | ISO 11359-2 |
| CTE, -40°C to 150°C, xflow | 4.5E-05 | 1/°C | ISO 11359-2 |
| 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 | 1.61 | - | ASTM D792 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|-------------------------------|----------|--------------|
| Water Absorption, (23°C/24hrs) | 0.13 | % | ASTM D570 |
| Water Absorption, (23°C/Saturated) | 0.9 | % | ASTM D570 |
| Mold Shrinkage, flow, 3.2 mm | 0.1 – 0.3 | % | SABIC method |
| Melt Flow Rate, 337°C/6.6 kgf | 5.2 | g/10 min | ASTM D1238 |
| ELECTRICAL | | | |
| Volume Resistivity | 1.5E+16 | Ω.cm | ASTM D257 |
| Dielectric Strength, in oil, 1.6 mm | 24 | kV/mm | ASTM D149 |
| Relative Permittivity, 1 kHz | 3.7 | - | ASTM D150 |
| Dissipation Factor, 1 kHz | 0.002 | - | ASTM D150 |
| Comparative Tracking Index (UL) {PLC} | 4 | PLC Code | UL 746A |
| Hot-Wire Ignition (HWI), PLC 0 | ≥1.5 | mm | UL 746A |
| High Amp Arc Ignition (HAI), PLC 4 | ≥1.5 | mm | UL 746A |
| High Voltage Arc Track Rate {PLC} | 4 | PLC Code | UL 746A |
| Arc Resistance, Tungsten {PLC} | 5 | PLC Code | ASTM D495 |
| FLAME CHARACTERISTICS ⁽¹⁾ | | | |
| UL Yellow Card Link | E45587-236986 | - | - |
| UL Recognized, 94-5VA Flame Class Rating | ≥1.5 | mm | UL 94 |
| UL Recognized, 94V-0 Flame Class Rating | ≥0.25 | mm | UL 94 |
| Oxygen Index (LOI) | 54 | % | ASTM D2863 |
| NBS Smoke Density, Flaming, Ds 4 min | 1 | - | ASTM E662 |
| INJECTION MOLDING | | | |
| Drying Temperature | 150 | °C | |
| Drying Time | 4 – 6 | Hrs | |
| Drying Time (Cumulative) | 24 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| 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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.



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.