

## Saint-Gobain Melidin® 7021 Isostatically Molded Graphite Filled Polyimide

Category : Polymer , Thermoset , Polyimide, TS

### Material Notes:

Melidin® 7021 is a self-lubricating thermosetting polyimide that contains 15% graphite filler. Melidin® 7021 has a low coefficient of friction and high heat resistance, and is best for high temperature bearing, seals, thrust washers, and low-wear applications. Specification Qualifications: Satisfies Type II, Class 1M for ASTM D 6456-99: Standard Specification for Finished Parts Made from Polyimide Resin Satisfies Class 2, Form M for SAE AMS 3644G: Polyimide, Molded Rod, Bar and Tube, Plaque, and Formed Parts Satisfies Type II, Class 1M for MIL-R-46198: Resin, Polyimide, Hot Pressed or Pressed and Sintered Information provided by Saint-Gobain Performance Plastics

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Saint-Gobain-Melidin-7021-Isostatically-Molded-Graphite-Filled-Polyimide.php](http://www.lookpolymers.com/polymer_Saint-Gobain-Melidin-7021-Isostatically-Molded-Graphite-Filled-Polyimide.php)

| Physical Properties | Metric          | English                   | Comments  |
|---------------------|-----------------|---------------------------|-----------|
| Density             | 1.51 g/cc       | 0.0546 lb/in <sup>3</sup> | ASTM D792 |
| Water Absorption    | 0.20 %          | 0.20 %                    | ASTM D570 |
|                     | @Time 86400 sec | @Time 24.0 hour           |           |

| Mechanical Properties      | Metric                | English               | Comments  |
|----------------------------|-----------------------|-----------------------|-----------|
| Hardness, Rockwell E       | 50                    | 50                    | ASTM D785 |
| Tensile Strength           | 37.9 MPa              | 5500 psi              | ASTM D638 |
|                            | @Temperature 260 Â°C  | @Temperature 500 Â°F  |           |
|                            | 65.5 MPa              | 9500 psi              | ASTM D638 |
|                            | @Temperature 23.0 Â°C | @Temperature 73.4 Â°F |           |
| Elongation at Break        | 4.3 %                 | 4.3 %                 | ASTM D638 |
|                            | @Temperature 260 Â°C  | @Temperature 500 Â°F  |           |
|                            | 4.5 %                 | 4.5 %                 | ASTM D638 |
|                            | @Temperature 23.9 Â°C | @Temperature 75.0 Â°F |           |
| Flexural Strength          | 108 MPa               | 15600 psi             | ASTM D790 |
| Flexural Modulus           | 3.90 GPa              | 566 ksi               | ASTM D790 |
| Compressive Yield Strength | 26.2 MPa              | 3800 psi              | ASTM D695 |
|                            | @Strain 1.00 %        | @Strain 1.00 %        |           |
|                            | 133 MPa               | 19300 psi             | ASTM D695 |
|                            | @Strain 10.0 %        | @Strain 10.0 %        |           |

| Compressive Modulus<br>Mechanical Properties | 2.30 GPa<br>Metric                                                                     | 334 ksi<br>English                                                                       | ASTM D695<br>Comments |
|----------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------|
| Thermal Properties                           | Metric                                                                                 | English                                                                                  | Comments              |
| CTE, linear                                  | 45.0 $\mu\text{m/m}\cdot^\circ\text{C}$<br>@Temperature 23.9 -<br>260 $^\circ\text{C}$ | 25.0 $\mu\text{in/in}\cdot^\circ\text{F}$<br>@Temperature 75.0 -<br>500 $^\circ\text{F}$ | ASTM E831             |
| Electrical Properties                        | Metric                                                                                 | English                                                                                  | Comments              |
| Dielectric Strength                          | 4.09 kV/mm                                                                             | 104 kV/in                                                                                | ASTM D149             |

## Contact Songhan Plastic Technology Co.,Ltd.

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