

## Solvay Specialty Polymers Lavanta® 5115 WH 251 Polyester, High Performance (HPP), 15% Glass Fiber

Category : Polymer , Thermoplastic , Polyester, TP

### Material Notes:

Lavanta® 5115 WH 251 is a high-performance polyester (HPP) is a 15% glass reinforced, injection molding grade developed specifically for HB LED packaging applications that utilize surface mount technology. Lavanta® 5115 WH 251 has high reflectivity with excellent whiteness retention even after thermal and light aging. This gives it excellent reliability for LEDs that operate at high junction temperatures.

Features: Fast Molding Cycle; Good Chemical Resistance; Good Color Stability; High Reflectivity; High Stiffness; Light Stabilized; Low

Moisture AbsorptionUses: LEDsAdditional Properties: Optical Reflectivity - ASTM E1331 > 95 %; Optical Reflectivity - ASTM E1331 > 95 %;

Optical Reflectivity - ASTM E1331 > 96 %Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Lavanta-5115-WH-251-Polyester-High-Performance-HPP-15-Glass-Fiber.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Lavanta-5115-WH-251-Polyester-High-Performance-HPP-15-Glass-Fiber.php)

| Physical Properties               | Metric                     | English                    | Comments    |
|-----------------------------------|----------------------------|----------------------------|-------------|
| Density                           | 1.63 g/cc                  | 0.0589 lb/in <sup>3</sup>  | ISO 1183    |
| Filler Content                    | 15 %                       | 15 %                       | Glass Fiber |
| Water Absorption                  | 0.050 %<br>@Time 86400 sec | 0.050 %<br>@Time 24.0 hour | ISO 62      |
| Linear Mold Shrinkage, Flow       | 0.0052 cm/cm               | 0.0052 in/in               |             |
| Linear Mold Shrinkage, Transverse | 0.013 cm/cm                | 0.013 in/in                | ASTM D955   |

| Mechanical Properties      | Metric                 | English                     | Comments                 |
|----------------------------|------------------------|-----------------------------|--------------------------|
| Tensile Strength           | 72.0 MPa               | 10400 psi                   | ASTM D638                |
| Elongation at Break        | 1.4 %                  | 1.4 %                       | ISO 527-2                |
| Tensile Modulus            | 6.82 GPa               | 989 ksi                     | ISO 527-2                |
| Flexural Strength          | 110 MPa                | 16000 psi                   | ISO 178                  |
| Flexural Modulus           | 6.38 GPa               | 925 ksi                     | ISO 178                  |
| Izod Impact, Notched (ISO) | 2.10 kJ/m <sup>2</sup> | 0.999 ft-lb/in <sup>2</sup> | Type 1, Notch A; ISO 180 |

| Thermal Properties            | Metric                                       | English  | Comments |
|-------------------------------|--|--|----------|
| CTE, linear, Parallel to Flow | 22.0 Åµm/m-Å°C<br>@Temperature 200 - 250 Å°C | 12.2 Åµin/in-Å°F<br>@Temperature 392 - 482 Å°F | 4        |

| Thermal Properties                          | Metric                      | English                    | Comments                      |
|---|-----------------------------|----------------------------|-------------------------------|
|   | @Temperature 150 - 200 Å°C  | @Temperature 302 - 392 Å°F |                               |
|   | 26.0 Åµm/m-Å°C              | 14.4 Åµin/in-Å°F           | 4                             |
|   | @Temperature 100 - 150 Å°C  | @Temperature 212 - 302 Å°F |                               |
|   | 29.0 Åµm/m-Å°C              | 16.1 Åµin/in-Å°F           | 4                             |
|   | @Temperature 50.0 - 100 Å°C | @Temperature 122 - 212 Å°F |                               |
| CTE, linear, Transverse to Flow             | 64.0 Åµm/m-Å°C              | 35.6 Åµin/in-Å°F           | TMA; ASTM E831                |
|   | @Temperature 50.0 - 100 Å°C | @Temperature 122 - 212 Å°F |                               |
|   | 100 Åµm/m-Å°C               | 55.6 Åµin/in-Å°F           | TMA; ASTM E831                |
|   | @Temperature 100 - 150 Å°C  | @Temperature 212 - 302 Å°F |                               |
|   | 130 Åµm/m-Å°C               | 72.2 Åµin/in-Å°F           | TMA; ASTM E831                |
|   | @Temperature 150 - 200 Å°C  | @Temperature 302 - 392 Å°F |                               |
|   | 140 Åµm/m-Å°C               | 77.8 Åµin/in-Å°F           | TMA; ASTM E831                |
|   | @Temperature 200 - 250 Å°C  | @Temperature 392 - 482 Å°F |                               |
| Melting Point                               | 285 Å°C                     | 545 Å°F                    | ISO 11357-3                   |
| Deflection Temperature at 0.46 MPa (66 psi) | 267 Å°C                     | 513 Å°F                    | HDT B; Unannealed; ISO 75-2/B |
| Deflection Temperature at 1.8 MPa (264 psi) | 203 Å°C                     | 397 Å°F                    |                               |

| Processing Properties    | Metric          | English         | Comments |
|--------------------------|-----------------|-----------------|----------|
| Rear Barrel Temperature  | 305 Å°C         | 581 Å°F         |          |
| Front Barrel Temperature | 290 Å°C         | 554 Å°F         |          |
| Melt Temperature         | 295 - 310 Å°C   | 563 - 590 Å°F   |          |
| Mold Temperature         | 130 - 150 Å°C   | 266 - 302 Å°F   |          |
| Drying Temperature       | 120 Å°C         | 248 Å°F         |          |
|                          | @Time 14400 sec | @Time 4.00 hour |          |
| Moisture Content         | <= 0.030 %      | <= 0.030 %      |          |

| Descriptive Properties | Value                | Comments |
|------------------------|----------------------|----------|
| Availability           | Africa & Middle East |          |
|                        | Asia Pacific         |          |
|                        | Europe               |          |
|                        | Latin America        |          |
|                        | North America        |          |
| Color                  | White                |          |
| Form                   | Pellets              |          |
| Processing Technique   | Injection Molding    |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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