

# Panlite® G-3415R

## TEIJIN LIMITED - Polycarbonate

### General Information

#### Product Description

Glass fiber reinforced grades-15% Glass fiber

#### General

|                        |                                          |                             |                 |
|------------------------|------------------------------------------|-----------------------------|-----------------|
| Material Status        | • Commercial: Active                     |                             |                 |
| Availability           | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Filler / Reinforcement | • Glass Fiber, 15% Filler by Weight      |                             |                 |
| Features               | • Creep Resistant                        | • High Rigidity             |                 |
| Uses                   | • Camera Applications                    | • Industrial Applications   |                 |
| Forms                  | • Pellets                                |                             |                 |
| Processing Method      | • Injection Molding                      |                             |                 |

### ASTM & ISO Properties <sup>1</sup>

| Physical                                           | Nominal Value | Unit              | Test Method     |
|----------------------------------------------------|---------------|-------------------|-----------------|
| Density                                            | 1.30          | g/cm <sup>3</sup> | ISO 1183        |
| Molding Shrinkage                                  |               |                   | Internal Method |
| Across Flow : 4.00 mm                              | 0.40 to 0.60  | %                 |                 |
| Flow : 4.00 mm                                     | 0.20 to 0.40  | %                 |                 |
| Water Absorption (24 hr, 23°C)                     | 0.15          | %                 | ISO 62          |
| Mechanical                                         | Nominal Value | Unit              | Test Method     |
| Tensile Modulus                                    | 5000          | MPa               | ISO 527-2/1     |
| Tensile Stress (Break)                             | 85.0          | MPa               | ISO 527-2/5     |
| Tensile Strain (Break)                             | 3.0           | %                 | ISO 527-2/5     |
| Flexural Modulus <sup>2</sup>                      | 4400          | MPa               | ISO 178         |
| Flexural Stress <sup>2</sup>                       | 130           | MPa               | ISO 178         |
| Impact                                             | Nominal Value | Unit              | Test Method     |
| Charpy Notched Impact Strength                     | 10            | kJ/m <sup>2</sup> | ISO 179         |
| Charpy Unnotched Impact Strength                   | 50            | kJ/m <sup>2</sup> | ISO 179         |
| Thermal                                            | Nominal Value | Unit              | Test Method     |
| Heat Deflection Temperature (0.45 MPa, Unannealed) | 150           | °C                | ISO 75-2/B      |
| Heat Deflection Temperature (1.8 MPa, Unannealed)  | 147           | °C                | ISO 75-2/A      |
| Vicat Softening Temperature                        | 152           | °C                | ISO 306/B50     |
| CLTE - Flow                                        | 3.0E-5        | cm/cm/°C          | ISO 11359-2     |
| CLTE - Transverse                                  | 6.0E-5        | cm/cm/°C          | ISO 11359-2     |
| RTI Elec (1.5 mm)                                  | 130           | °C                | UL 746          |
| RTI Imp (1.5 mm)                                   | 125           | °C                | UL 746          |
| RTI Str (1.5 mm)                                   | 130           | °C                | UL 746          |

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| Electrical                     | Nominal Value | Unit    | Test Method |
|--------------------------------|---------------|---------|-------------|
| Surface Resistivity            | > 1.0E+15     | ohms    | IEC 60093   |
| Volume Resistivity             | > 1.0E+15     | ohms·cm | IEC 60093   |
| Electric Strength <sup>3</sup> | 35            | kV/mm   | IEC 60243-1 |
| Relative Permittivity          |               |         | IEC 60250   |
| 100 Hz                         | 3.30          |         |             |
| 1 MHz                          | 3.30          |         |             |
| Dissipation Factor             |               |         | IEC 60250   |
| 100 Hz                         | 1.0E-3        |         |             |
| 1 MHz                          | 9.0E-3        |         |             |
| Comparative Tracking Index     | 175           | V       | IEC 60112   |
| Flammability                   | Nominal Value | Unit    | Test Method |
| Flame Rating                   |               |         | UL 94       |
| 0.43 mm                        |               | HB      |             |
| 0.8 mm                         |               | V-2     |             |
| 3.0 mm                         |               | V-1     |             |

Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 mm/min

<sup>3</sup> short time test