

# Panlite® EN-8615N

## TEIJIN LIMITED - Polycarbonate

### General Information

#### Product Description

EMI shield (Phosphor type flame resistance)

#### General

|                        |                                                                                          |
|------------------------|------------------------------------------------------------------------------------------|
| Filler / Reinforcement | • Carbon Fiber, 15% Filler by Weight                                                     |
| Properties             | • Creep Resistant • Flame Retardant<br>• Electromagnetic Shielding (EMI) • High Rigidity |
| Uses                   | • Camera Applications • Electrical Parts • Industrial Applications                       |
| Appearance             | • Black                                                                                  |
| Forms                  | • Pellets                                                                                |
| Processing Method      | • Injection Molding                                                                      |

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

| Physical                                | Nominal Value    | Unit              | Test Method     |
|-----------------------------------------|------------------|-------------------|-----------------|
| Density                                 | 1.31             | g/cm <sup>3</sup> | ISO 1183        |
| Molding Shrinkage                       |                  |                   | Internal Method |
| Across Flow : 2.00 mm                   | 0.28 to 0.48     | %                 |                 |
| Flow : 2.00 mm                          | 0.070 to 0.27    | %                 |                 |
| Water Absorption (24 hr, 23°C)          | 0.15             | %                 | ISO 62          |
| Mechanical                              | Nominal Value    | Unit              | Test Method     |
| Tensile Modulus (23°C)                  | 8100             | MPa               | ISO 527-1/1     |
| Tensile Stress (Break, 23°C)            | 70.0             | MPa               | ISO 527-2/5     |
| Tensile Strain (Break, 23°C)            | 5.0              | %                 | ISO 527-2/5     |
| Flexural Modulus <sup>2</sup> (23°C)    | 7600             | MPa               | ISO 178         |
| Flexural Stress <sup>2</sup> (23°C)     | 110              | MPa               | ISO 178         |
| Impact                                  | Nominal Value    | Unit              | Test Method     |
| Charpy Notched Impact Strength (23°C)   | 8.0              | kJ/m <sup>2</sup> | ISO 179         |
| Charpy Unnotched Impact Strength (23°C) | 22               | kJ/m <sup>2</sup> | ISO 179         |
| Thermal                                 | Nominal Value    | Unit              | Test Method     |
| Deflection Temperature Under Load       |                  |                   | ISO 75-2/B      |
| 0.45 MPa, Unannealed                    | 118              | °C                |                 |
| Deflection Temperature Under Load       |                  |                   | ISO 75-2/A      |
| 1.8 MPa, Unannealed                     | 110              | °C                |                 |
| Vicat Softening Temperature             | 124              | °C                | ISO 306/B50     |
| CLTE - Flow                             | 1.5E-5 to 2.0E-5 | cm/cm/°C          | ISO 11359-2     |
| CLTE - Transverse                       | 7.5E-5 to 8.0E-5 | cm/cm/°C          | ISO 11359-2     |
| RTI Elec (0.75 mm)                      | 80.0             | °C                | UL 746B         |
| RTI Imp (0.75 mm)                       | 80.0             | °C                | UL 746B         |
| RTI Str (0.75 mm)                       | 80.0             | °C                | UL 746B         |
| Electrical                              | Nominal Value    | Unit              | Test Method     |
| Surface Resistivity                     | 6.0              | ohms              | IEC 60093       |
| Volume Resistivity                      | 0.50             | ohms·cm           | IEC 60093       |

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| Flammability | Nominal Value | Unit | Test Method |
|--------------|---------------|------|-------------|
| Flame Rating |               |      | UL 94       |
| 0.75 mm      |               | V-2  |             |
| 1.5 mm       |               | V-0  |             |

| Processing Information |               |      |  |
|------------------------|---------------|------|--|
| Injection              | Nominal Value | Unit |  |
| Drying Temperature     | 100           | °C   |  |
| Drying Time            | 5.0 to 8.0    | hr   |  |
| Processing (Melt) Temp | 250 to 290    | °C   |  |
| Mold Temperature       | 60 to 100     | °C   |  |

Notes

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 2.0 mm/min