

# Panlite® ML-3305ZLS

TEIJIN LIMITED - Polycarbonate

## General Information

### Product Description

Injection molding grade, Light diffusion grade, Weather resistance

### General

|                   |                       |                         |                      |
|-------------------|-----------------------|-------------------------|----------------------|
| Properties        | • Low Light Diffusion | • UV Resistant          |                      |
| Uses              | • LEDs                | • Lighting Applications | • Lighting Diffusers |
| Appearance        | • Milky White         |                         |                      |
| Forms             | • Pellets             |                         |                      |
| Processing Method | • Injection Molding   |                         |                      |

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

| Physical                                   | Nominal Value | Unit                   | Test Method     |
|--------------------------------------------|---------------|------------------------|-----------------|
| Density                                    | 1.20          | g/cm <sup>3</sup>      | ISO 1183        |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 18            | cm <sup>3</sup> /10min | ISO 1133        |
| Molding Shrinkage                          |               |                        | Internal Method |
| Across Flow : 4.00 mm                      | 0.50 to 0.70  | %                      |                 |
| Flow : 4.00 mm                             | 0.50 to 0.70  | %                      |                 |
| Mechanical                                 | Nominal Value | Unit                   | Test Method     |
| Tensile Stress (Yield, 23°C)               | 61.0          | MPa                    | ISO 527-2/50    |
| Tensile Stress (Break, 23°C)               | 60.0          | MPa                    | ISO 527-2/50    |
| Tensile Strain (Break, 23°C)               | 90            | %                      | ISO 527-2/50    |
| Flexural Modulus <sup>2</sup> (23°C)       | 2150          | MPa                    | ISO 178         |
| Flexural Stress <sup>2</sup> (23°C)        | 95.0          | MPa                    | ISO 178         |
| Impact                                     | Nominal Value | Unit                   | Test Method     |
| Charpy Notched Impact Strength (23°C)      | 10            | kJ/m <sup>2</sup>      | ISO 179         |
| Thermal                                    | Nominal Value | Unit                   | Test Method     |
| Deflection Temperature Under Load          |               |                        | ISO 75-2/A      |
| 1.8 MPa, Unannealed                        | 126           | °C                     |                 |
| CLTE - Flow                                | 7.0E-5        | cm/cm/°C               | ISO 11359-2     |
| CLTE - Transverse                          | 7.0E-5        | cm/cm/°C               | ISO 11359-2     |
| RTI Elec (0.75 mm)                         | 125           | °C                     | UL 746B         |
| RTI Imp (0.75 mm)                          | 115           | °C                     | UL 746B         |
| RTI Str (0.75 mm)                          | 125           | °C                     | UL 746B         |
| Electrical                                 | Nominal Value | Unit                   | Test Method     |
| Surface Resistivity                        | > 1.0E+15     | ohms                   | IEC 60093       |
| Volume Resistivity                         | > 1.0E+15     | ohms·cm                | IEC 60093       |
| Flammability                               | Nominal Value | Unit                   | Test Method     |
| Flame Rating (0.40 mm)                     | V-2           |                        | UL 94           |
| Optical                                    | Nominal Value | Unit                   | Test Method     |
| Light Transmittance                        |               |                        | JIS K7361       |
| 1000 μm                                    | 88.0          | %                      |                 |
| 2000 μm                                    | 85.0          | %                      |                 |

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| Processing Information |               |      |
|------------------------|---------------|------|
| Injection              | Nominal Value | Unit |
| Drying Temperature     | 120           | °C   |
| Drying Time            | 5.0 to 8.0    | hr   |
| Processing (Melt) Temp | 270 to 320    | °C   |
| Mold Temperature       | 80 to 120     | °C   |

Notes

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