

# Panlite® ML-7500ZAH

TEIJIN LIMITED - Polycarbonate

## General Information

### Product Description

Extrusion molding grade, Light diffusion grade, Weather resistance, Flame resistance

### General

|                   |                   |                         |                      |
|-------------------|-------------------|-------------------------|----------------------|
| Properties        | • Flame Retardant | • High Light Diffusion  | • UV Resistant       |
| Uses              | • LEDs            | • Lighting Applications | • Lighting Diffusers |
| Appearance        | • Milky White     |                         |                      |
| Forms             | • Pellets         |                         |                      |
| Processing Method | • Extrusion       |                         |                      |

## 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) | 8.0           | 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)        | 92.0          | MPa                    | ISO 178         |
| Impact                                     | Nominal Value | Unit                   | Test Method     |
| Charpy Notched Impact Strength (23°C)      | 20            | 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                        | 128           | °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 (1.0 mm)                          | 130           | °C                     | UL 746B         |
| RTI Imp (1.0 mm)                           | 125           | °C                     | UL 746B         |
| RTI Str (1.0 mm)                           | 130           | °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 (1.0 mm)                      | V-0           |                        | UL 94           |
| Optical                                    | Nominal Value | Unit                   | Test Method     |
| Light Transmittance                        |               |                        | JIS K7361       |
| 1000 μm                                    | 59.0          | %                      |                 |
| 2000 μm                                    | 50.0          | %                      |                 |

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### Processing Information

| Extrusion          | Nominal Value | Unit |
|--------------------|---------------|------|
| Drying Temperature | 120           | °C   |
| Drying Time        | 5.0 to 8.0    | hr   |
| Melt Temperature   | 270 to 320    | °C   |
| Die Temperature    | 270 to 320    | °C   |

### Notes

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

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