

# Panlite® AM-1300

## TEIJIN LIMITED - Polycarbonate Alloy

### General Information

#### Product Description

PC alloy grade (Special modification)

#### General

|                   |                                          |                             |                 |
|-------------------|------------------------------------------|-----------------------------|-----------------|
| Material Status   | • Commercial: Active                     |                             |                 |
| Availability      | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features          | • Chemical Resistant                     | • Good Impact Resistance    |                 |
| Uses              | • Automotive Instrument Panel            | • Cell Phones               |                 |
| Forms             | • Pellets                                |                             |                 |
| Processing Method | • Injection Molding                      |                             |                 |

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

| Physical                                           | Nominal Value | Unit                   | Test Method     |
|----------------------------------------------------|---------------|------------------------|-----------------|
| Density                                            | 1.18          | g/cm <sup>3</sup>      | ISO 1183        |
| Melt Volume-Flow Rate (MVR) (280°C/2.16 kg)        | 7.00          | 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  | %                      |                 |
| Water Absorption (24 hr, 23°C)                     | 0.20          | %                      | ISO 62          |
| Mechanical                                         | Nominal Value | Unit                   | Test Method     |
| Tensile Modulus                                    | 2250          | MPa                    | ISO 527-2/1     |
| Tensile Stress (Yield)                             | 56.0          | MPa                    | ISO 527-2/50    |
| Tensile Stress (Break)                             | 61.0          | MPa                    | ISO 527-2/50    |
| Tensile Strain (Yield)                             | 5.0           | %                      | ISO 527-2/50    |
| Tensile Strain (Break)                             | 130           | %                      | ISO 527-2/50    |
| Flexural Modulus <sup>2</sup>                      | 2150          | MPa                    | ISO 178         |
| Flexural Stress <sup>2</sup>                       | 85.0          | MPa                    | ISO 178         |
| Impact                                             | Nominal Value | Unit                   | Test Method     |
| Charpy Notched Impact Strength                     |               |                        | ISO 179         |
| -30°C                                              | 55            | kJ/m <sup>2</sup>      |                 |
| 23°C                                               | 63            | kJ/m <sup>2</sup>      |                 |
| Charpy Unnotched Impact Strength (23°C)            | No Break      |                        | ISO 179         |
| Thermal                                            | Nominal Value | Unit                   | Test Method     |
| Heat Deflection Temperature (0.45 MPa, Unannealed) | 135           | °C                     | ISO 75-2/B      |
| Heat Deflection Temperature (1.8 MPa, Unannealed)  | 123           | °C                     | ISO 75-2/A      |
| CLTE - Flow                                        | 7.0E-5        | cm/cm/°C               | ISO 11359-2     |
| CLTE - Transverse                                  | 7.0E-5        | cm/cm/°C               | ISO 11359-2     |
| Electrical                                         | Nominal Value | Unit                   | Test Method     |
| Surface Resistivity                                | > 1.0E+15     | ohms                   | IEC 60093       |
| Flammability                                       | Nominal Value | Unit                   | Test Method     |
| Flame Rating (0.40 mm)                             | V-2           |                        | UL 94           |

#### Notes

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

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