

## Technical Data Sheet



### ALCOM LD2 PC 1000 UV WT1101-22

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| Base Polymer           | Polycarbonate                                               |
| Filler/Additive System | special filler,UV stabilised                                |
| Special Features       | translucent,light scattering,high light diffusion,easy flow |
| Market Segment         | Automotive,Lighting                                         |
| Application Area       | lighting,light transparent components                       |
| Typical Applications   | lamp covers,display elements,operating elements             |
| Approvals              | GS93016                                                     |

|                               |                                                                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-Drying Conditions         | 120 °C in a dry air (dessiccant) dryer<br>for 2-4 h<br>120 °C in an air circulating dryer<br>for 4-12 h<br>max. moisture content <0,02 % |
| Processing Injection Moulding | melt temperature 270-310 °C<br>mould temperature 80-110 °C                                                                               |
| Storage                       | dry, protected from light                                                                                                                |

| Properties                              | Value     | Dimension              | Test Norm   |
|-----------------------------------------|-----------|------------------------|-------------|
| <b>Mechanical Properties</b>            |           |                        |             |
| Flexural Modulus                        | 2450      | MPa                    | ISO 178     |
| Flexural Stress (3.5% Strain)           | 76        | MPa                    | ISO 178     |
| Tensile Modulus                         | 2400      | MPa                    | ISO 527     |
| Tensile Stress at Yield                 | 66        | MPa                    | ISO 527     |
| Tensile Elongation at Yield             | 6         | %                      | ISO 527     |
| Tensile Elongation at Break             | 35        | %                      | ISO 527     |
| Impact Strength (Charpy, 23°C)          | no break  | kJ/m <sup>2</sup>      | ISO 179/1eU |
| Impact Strength (Charpy, -40°C)         | no break  | kJ/m <sup>2</sup>      | ISO 179/1eU |
| Notched Impact Strength (Charpy, 23°C)  | 11        | kJ/m <sup>2</sup>      | ISO 179/1eA |
| Notched Impact Strength (Charpy, -40°C) | 11        | kJ/m <sup>2</sup>      | ISO 179/1eA |
| <b>Thermal Properties</b>               |           |                        |             |
| Vicat B50                               | 142       | °C                     | ISO 306     |
| HDT / A (1,8 MPa)                       | 124       | °C                     | ISO 75-1/-2 |
| <b>Rheological Properties</b>           |           |                        |             |
| Melt Index (MVR)                        | 30        | cm <sup>3</sup> /10min | ISO 1133    |
| MVR temperature                         | 300       | °C                     | -           |
| MVR load                                | 1.2       | kg                     | -           |
| Shrinkage (24h)                         | 0.6 - 0.9 | %                      | ISO 294-4   |
| <b>Physical Properties</b>              |           |                        |             |
| Density                                 | 1190      | kg/m <sup>3</sup>      | ISO 1183    |

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#### Flammability

|                                 |        |       |              |
|---------------------------------|--------|-------|--------------|
| Flammability (0.75 mm)          | V-2    | class | UL 94        |
| Flammability (1.5 mm)           | HB     | class | UL 94        |
| Glow Wire (GWFI, 850 °C, 1.0mm) | passed | -     | DIN EN 60695 |
| Glow Wire (GWFI, 850 °C, 2.0mm) | passed | -     | DIN EN 60695 |

#### Optical Properties

|                                          |      |   |           |
|------------------------------------------|------|---|-----------|
| Total Transmission T(Y) (d=1,0mm, A, 2°) | 57   | % | ISO 13468 |
| Total Transmission T(Y) (d=2,0mm, A, 2°) | 46   | % | ISO 13468 |
| Total Transmission T(Y) (d=3,0mm, A, 2°) | 38.5 | % | ISO 13468 |
| Total Transmission T(Y) (d=4,0mm, A, 2°) | 32   | % | ISO 13468 |
| Haze T(Y) (d=1,0 mm, A, 2°)              | 95.5 | % | ISO 13468 |
| Haze T(Y) (d=2,0 mm, A, 2°)              | 95.5 | % | ISO 13468 |
| Haze T(Y) (d=3,0 mm, A, 2°)              | 95.5 | % | ISO 13468 |
| Haze T(Y) (d=4,0 mm, A, 2°)              | 95.5 | % | ISO 13468 |
| Half Power Angle T(Y) (d=1,0mm, A, 2°)   | 52   | ° | -         |
| Half Power Angle T(Y) (d=2,0mm, A, 2°)   | 60   | ° | -         |
| Half Power Angle T(Y) (d=3,0mm, A, 2°)   | 62   | ° | -         |
| Half Power Angle T(Y) (d=4,0mm, A, 2°)   | 64   | ° | -         |

#### Diagrams

##### Stress-Strain

