

## Technical Data Sheet



### ALCOM LB ECO PC+ABS 1000 SL WT1023-21

|                      |                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------|
| Base Polymer         | Polycarbonate +Acrylonitrile Butadiene Styrene Blend                                             |
| Special Features     | injection moulding grade,highly reflective,contains recycled material,antisqueak-modified,opaque |
| Market Segment       | Automotive,electrical and electronic,Lighting                                                    |
| Application Area     | lighting,light blocking components                                                               |
| Typical Applications | light guides,reflectors                                                                          |

|                               |                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------|
| Pre-Drying Conditions         | in a dry air (dessiccant) dryer 100-110 °C<br>for 2-4 h<br>in an air circulating dryer 100-110 °C<br>for 3-6 h |
| Processing Injection Moulding | melt temperature 240-280 °C<br>mould temperature 70-100 °C                                                     |
| Storage                       | dry, protected from light                                                                                      |

| Properties                              | Value     | Dimension              | Test Norm   |
|-----------------------------------------|-----------|------------------------|-------------|
| <b>Mechanical Properties</b>            |           |                        |             |
| Flexural Modulus                        | 2000      | MPa                    | ISO 178     |
| Flexural Stress (3.5% Strain)           | 60        | MPa                    | ISO 178     |
| Tensile Modulus                         | 2000      | MPa                    | ISO 527     |
| Tensile Stress at Yield                 | 42        | MPa                    | ISO 527     |
| Tensile Elongation at Yield             | 3.3       | %                      | ISO 527     |
| Tensile Elongation at Break             | 75        | %                      | ISO 527     |
| Impact Strength (Charpy, 23°C)          | 255       | kJ/m <sup>2</sup>      | ISO 179/1eU |
| Impact Strength (Charpy, -40°C)         | 220       | kJ/m <sup>2</sup>      | ISO 179/1eU |
| Notched Impact Strength (Charpy, 23°C)  | 65        | kJ/m <sup>2</sup>      | ISO 179/1eA |
| Notched Impact Strength (Charpy, -40°C) | 7         | kJ/m <sup>2</sup>      | ISO 179/1eA |
| Ball Indentation Hardness H358/30       | 83        | MPa                    | ISO 2039-1  |
| <b>Thermal Properties</b>               |           |                        |             |
| Vicat B50                               | 104       | °C                     | ISO 306     |
| HDT / A (1,8 MPa)                       | 99        | °C                     | ISO 75-1/-2 |
| <b>Rheological Properties</b>           |           |                        |             |
| Melt Index (MVR)                        | 17        | cm <sup>3</sup> /10min | ISO 1133    |
| MVR temperature                         | 260       | °C                     | -           |
| MVR load                                | 5         | kg                     | -           |
| Shrinkage (24h)                         | 0.6 - 0.8 | %                      | ISO 294-4   |
| <b>Physical Properties</b>              |           |                        |             |
| Density                                 | 1260      | kg/m <sup>3</sup>      | ISO 1183    |

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#### Ecological Properties

|                                |     |                           |                  |
|--------------------------------|-----|---------------------------|------------------|
| Global Warming Potential (GWP) | 1.8 | kg CO <sub>2</sub> eq./kg | ISO 14040, 14044 |
|--------------------------------|-----|---------------------------|------------------|

#### Optical Properties

|                                               |    |   |          |
|-----------------------------------------------|----|---|----------|
| Tristimulus Value Y10 of Reflection (d=2,0mm) | 93 | % | DIN 5033 |
|-----------------------------------------------|----|---|----------|