Technical Data Sheet





ALCOM LDDC PMMA 1000 UV BK1075-21

(Last update: 01.02.2024)

MCOM

Base Polymer Polymethylmethacrylate

Filler/Additive System special filler

Special Features high light transmission, UV stabilised, injection moulding grade

Market Segment Automotive, Lighting

Application Area lighting, light transparent components

Typical Applications lamp covers, display elements, operating elements

Pre-Drying Conditions 80 °C in a dry air (dessiccant) dryer

for 3-4 h

max. moisture content <0,02 %

Processing Injection Moulding melt temperature 220-260 °C

mould temperature 60-90 °C

Storage dry, protected from light

| Properties | Value | Dimension | Test Norm |
|--|-----------|------------------------|------------------|
| Mechanical Properties | | | |
| Flexural Modulus | 3500 | MPa | ISO 178 |
| Flexural Strength | 115 | MPa | ISO 178 |
| Tensile Modulus | 3400 | MPa | ISO 527 |
| Tensile Strength at Break | 70 | MPa | ISO 527 |
| Tensile Elongation at Break | 3.6 | % | ISO 527 |
| Impact Strength (Charpy, 23°C) | 20 | kJ/m² | ISO 179/1eU |
| Impact Strength (Charpy, -40°C) | 20 | kJ/m² | ISO 179/1eU |
| Notched Impact Strength (Charpy, 23°C) | 1.5 | kJ/m² | ISO 179/1eA |
| Notched Impact Strength (Charpy, -40°C) | 1.5 | kJ/m² | ISO 179/1eA |
| Thermal Properties | | | |
| Vicat B50 | 105 | °C | ISO 306 |
| HDT / A (1,8 MPa) | 86 | °C | ISO 75-1/-2 |
| Rheological Properties | | | |
| Melt Index (MVR) | 3 | cm ³ /10min | ISO 1133 |
| MVR temperature | 230 | °C | - |
| MVR load | 3.8 | kg | - |
| Shrinkage (24h) | 0.5 - 0.8 | % | ISO 294-4 |
| Physical Properties | | | |
| Density | 1190 | kg/m³ | ISO 1183 |
| Optical Properties | | | |
| Total Transmission T(Y) (d=1,0mm, A, 2°) | 30 | % | ISO 13468 |

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| Total Transmission T(Y) (d=2,0mm, A, 2°) | 10 | % | ISO 13468 |
|---|----|---|-----------|
| Haze T(Y) (d=1,0 mm, A, 2°) | 8 | % | ISO 13468 |
| Haze T(Y) (d=2,0 mm, A, 2°) | 12 | % | ISO 13468 |
| Half Power Angle T(Y) (d=1,0mm, A, 2°, high res.) | 1 | 0 | - |
| Half Power Angle T(Y) (d=2,0mm, A, 2°, high res.) | 1 | 0 | - |

Liability Exclusion

These are guide values and not a specification. The test values mentioned are representative values only and not binding minimum or maximum figures. These test values have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions.

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- risk class III applications according to EU directive 93/42/EEC
- · any bodily implant application for greater than 30 days
- any critical component in any medical device that supports or sustains human life.

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