

Technical Data Sheet



ALCOM LD2 PC 1000 UV 15003 CC1005-15

| | |
|------------------------|---|
| Base Polymer | Polycarbonate |
| Filler/Additive System | special filler,UV stabilised |
| Special Features | high light transmission,dependent on wall thickness,light scattering,high light diffusion,dependent on wall thickness,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 for 2-4 h 120 °C in an air circulating dryer for 4-12 h max. moisture content <0,02 % |
| Processing Injection Moulding | melt temperature 270-310 °C mould temperature 80-110 °C |
| Storage | dry, protected from light |

| Properties | Value | Dimension | Test Norm |
|---|-----------|------------------------|-------------|
| Mechanical Properties | | | |
| 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 | 30 | % | ISO 527 |
| Impact Strength (Charpy, 23°C) | no break | kJ/m ² | ISO 179/1eU |
| Impact Strength (Charpy, -40°C) | no break | kJ/m ² | ISO 179/1eU |
| Notched Impact Strength (Charpy, 23°C) | 8 | kJ/m ² | ISO 179/1eA |
| Notched Impact Strength (Charpy, -40°C) | 8 | kJ/m ² | ISO 179/1eA |
| Thermal Properties | | | |
| Vicat B50 | 142 | °C | ISO 306 |
| HDT / A (1,8 MPa) | 124 | °C | ISO 75-1/-2 |
| Rheological Properties | | | |
| Melt Index (MVR) | 37 | cm ³ /10min | ISO 1133 |
| MVR temperature | 300 | °C | - |
| MVR load | 1.2 | kg | - |
| Shrinkage (24h) | 0.6 - 0.9 | % | ISO 294-4 |

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Physical Properties

| | | | |
|---------|------|-------------------|----------|
| Density | 1190 | kg/m ³ | ISO 1183 |
|---------|------|-------------------|----------|

Flammability

| | | | |
|---------------------------------|--------|-------|--------------|
| Flammability (0.75 mm) | V-2 | class | UL 94 |
| Yellow Card available | yes | - | - |
| Flammability (1.5 mm) | HB | class | UL 94 |
| Yellow Card available | yes | - | - |
| 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°) | 80 | % | ISO 13468 |
| Total Transmission T(Y) (d=2,0mm, A, 2°) | 67 | % | ISO 13468 |
| Total Transmission T(Y) (d=3,0mm, A, 2°) | 56 | % | ISO 13468 |
| Total Transmission T(Y) (d=4,0mm, A, 2°) | 49 | % | ISO 13468 |
| Haze T(Y) (d=1,0 mm, A, 2°) | 93 | % | 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°) | 2 | ° | - |
| Half Power Angle T(Y) (d=2,0mm, A, 2°) | 23 | ° | - |
| Half Power Angle T(Y) (d=3,0mm, A, 2°) | 38 | ° | - |
| Half Power Angle T(Y) (d=4,0mm, A, 2°) | 47 | ° | - |

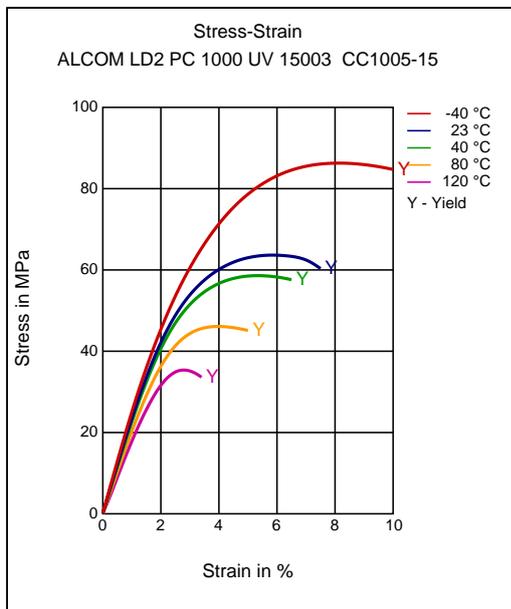
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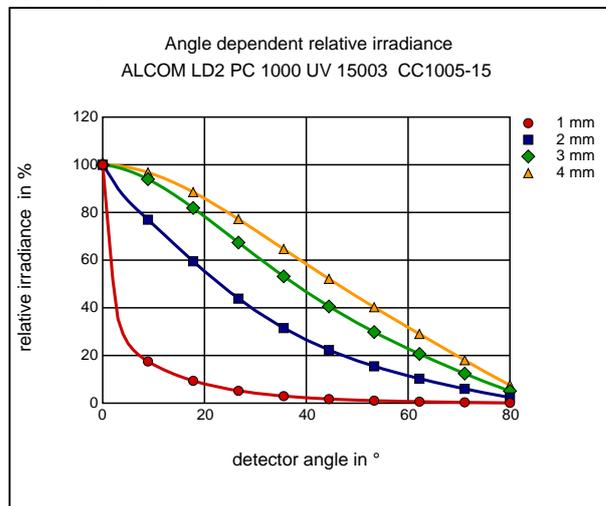
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Diagrams

Stress-Strain



Angle dependent relative irradiance



Spectrum

