



## ALCOM PC 740/4 UV WT1153-13LDS

(Last update: 17.07.2023)



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

|                               |                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Pre-Drying Conditions         | 120 °C in a dry air (dessiccant) dryer<br>for 2-3 h<br>dependant on moisture content<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             | 70        | %                      | 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)  | 12        | kJ/m <sup>2</sup>      | ISO 179/1eA |
| Notched Impact Strength (Charpy, -40°C) | 12        | 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)                        | 15        | 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               |
| 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        |
| Glow Wire (GWFI, 960 °C, 3.0mm) | passed | -     | DIN EN 60695        |
| Glow Wire (GWFI, 960 °C, 4.0mm) | passed | -     | DIN EN 60695        |
| Fire behavior FMVSS (1.0 mm)    | passed | -     | FMVSS 302/DIN 75200 |

### Optical Properties

|                                          |    |   |           |
|------------------------------------------|----|---|-----------|
| Total Transmission T(Y) (d=1,0mm, A, 2°) | 26 | % | ISO 13468 |
| Total Transmission T(Y) (d=2,0mm, A, 2°) | 13 | % | ISO 13468 |
| Total Transmission T(Y) (d=3,0mm, A, 2°) | 7  | % | ISO 13468 |
| Total Transmission T(Y) (d=4,0mm, A, 2°) | 4  | % | ISO 13468 |
| Haze T(Y) (d=1,0 mm, A, 2°)              | 95 | % | ISO 13468 |
| Haze T(Y) (d=2,0 mm, A, 2°)              | 95 | % | ISO 13468 |
| Haze T(Y) (d=3,0 mm, A, 2°)              | 95 | % | ISO 13468 |
| Haze T(Y) (d=4,0 mm, A, 2°)              | 95 | % | ISO 13468 |
| Half Power Angle T(Y) (d=1,0mm, A, 2°)   | 57 | ° | -         |
| Half Power Angle T(Y) (d=2,0mm, A, 2°)   | 59 | ° | -         |
| Half Power Angle T(Y) (d=3,0mm, A, 2°)   | 60 | ° | -         |
| Half Power Angle T(Y) (d=4,0mm, A, 2°)   | 61 | ° | -         |

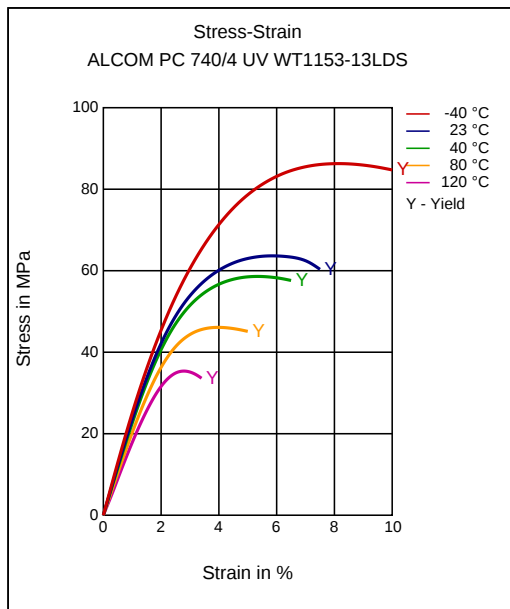
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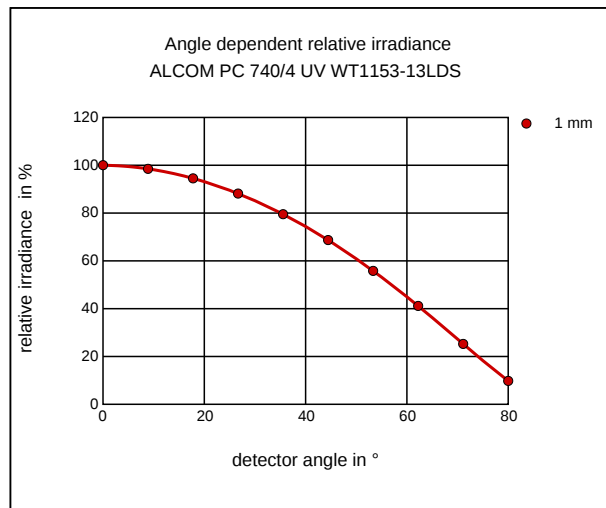
## MOCOM

### Diagrams

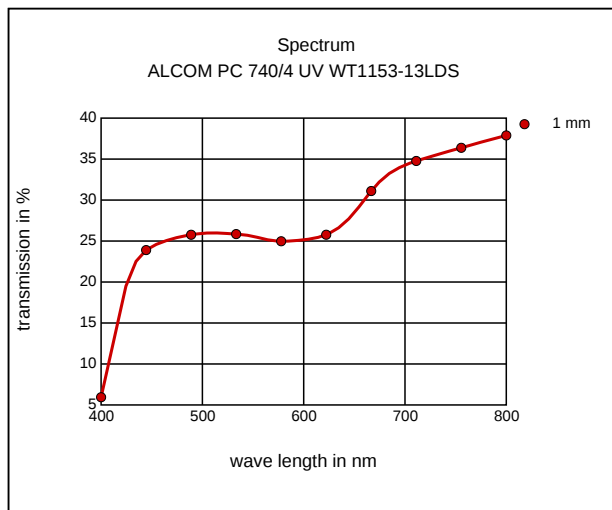
#### Stress-Strain



#### Angle dependent relative irradiance



#### Spectrum



#### 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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