

# **Makrofol<sup>®</sup> LM 903 160008**

Description and Application Information

 $Makrofol^{\$}$  LM 903 160008 (formerly Makrofol<sup>®</sup> DP 9003) is an opaque white extruded film based on Makrolon Polycarbonate. It offers the high light reflection which is designed to apply in the field of LCD backlight and LED backlight.

Makrofol<sup>®</sup> LM 903 160008 is available in standard thicknesses of of 300, 400 and 500  $\mu$ m. Other thicknesses are on request. The surface combination is one side gloss – one side matte.

#### Preliminary guide data

| General properties          |            |                     |                       |  |
|-----------------------------|------------|---------------------|-----------------------|--|
| Property                    | Value      | Unit of measurement | Method                |  |
| Density                     | 1.34       | g/cm³               | ISO 1183, 20°C,       |  |
|                             |            |                     | Method C              |  |
| Gloss                       |            | Digits              | ISO 2813, Angle 60°,  |  |
|                             |            |                     | backprinted black     |  |
| 1 - surface                 | ≥ 99       |                     |                       |  |
| 2 - surface                 | < 15       |                     |                       |  |
| Optical properties          |            |                     |                       |  |
| Property                    | Value      | Unit of measurement | Method                |  |
| Light reflection            | ≥ 95       | %                   | ASTM E1331, against   |  |
|                             |            |                     | white background      |  |
| Mechanical properties       |            |                     |                       |  |
| Property                    | Value      | Unit of measurement | Method                |  |
| Stress at break             |            | MPa                 | ISO 527-1,-3          |  |
| machine direction           | ≥ 65       |                     |                       |  |
| transverse direction        | ≥ 65       |                     |                       |  |
| Strain at break             |            | %                   | ISO 527-1,-3          |  |
| machine direction           | ≥ 100      |                     |                       |  |
| transverse direction        | ≥ 100      |                     |                       |  |
| Tensile Modulus             |            | MPa                 | ISO 527-1,-3          |  |
| machine direction           | ≥ 2650     |                     |                       |  |
| transverse direction        | ≥ 2600     |                     |                       |  |
| Thermal properties          |            |                     |                       |  |
| Property                    | Value      | Unit of measurement | Method                |  |
| Vicat softening temperature | 143        | °C                  | ISO 306, 50 N, 50°C/h |  |
| Operating temperature range | -30 to 145 | °C                  |                       |  |
| Melt temperature            | 300        | °C                  |                       |  |

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**Preliminary Product Datasheet** 

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| Value | Unit of measurement | Method                          |
|-------|---------------------|---------------------------------|
| 10^16 |                     | following DIN IEC 60093         |
|       |                     |                                 |
| Value | Unit of measurement | Method                          |
| 0.2   | %                   | following ISO 62                |
|       | 10^16<br>Value      | 10^16 Value Unit of measurement |

#### Labeling and REACH applications

### This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet.

Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently valid Safety Data Sheet.

This Information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided - especially that contained in our safety data and technical information sheets - and to test our products as to their suitability for the intended processes and uses. This is a developmental product. Further information, including amended or supplementary data on hazards associated with its use, may be compiled in the future. For this reason no assurances are given as to type conformity, processability, long-term performance characteristics or other production or application parameters. Therefore, the purchaser/user uses the product entirely at his own risk without having been given any warranty or guarantee and agrees that the supplier shall not be liable for any damages, of whatever nature, arising out of such use. Commercialization and continued supply of this material are not assured. Its supply may be discontinued at any time.

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