

Makrofol® LM322 2-4 160006

Description and Application Information

Makrofol® LM322 2-4 160006 is an extruded polycarbonate film filled with light-scattering agent. It displays a smooth homogenous illumination of the front side of a backlight part even if a point source light is applied.

The thickness of Makrofol® LM322 2-4 160006 is 300 microns. Other thicknesses on request.

Surface structure is gloss/fine matte (2-surface/4-surface).

Typical applications are automotive instrument panels and backlight displays.

Preliminary guide data

General properties

Property	Value	Unit of measurement	Method
Density	1,2	g/cm ³	ISO 1183, 20°C, Method C
Thickness	300	µm	acc. to ISO 4593, 23°C
Gloss		Digits	ISO 2813, Angle 60°, backprinted black
2-surface	≥ 90		
4-surface	≤ 5		
Roughness R3z		µm	acc. to ISO 4287/88, Lm12,5mm, lc 2,5mm, Average over 3-5 measurements
2-surface	≤ 3		
4-surface	3 to 9		

Optical properties

Property	Value	Unit of measurement	Method
Light transmission	≥ 55	%	ASTM D1003
Haze	100	%	ASTM D1003
Half-power angle	57 ± 5	Degree	following DIN 58161

Mechanical properties

Property	Value	Unit of measurement	Method
Stress at break	≥ 45	MPa	ISO 527-1,-3
Strain at break	≥ 100	%	ISO 527-1,-3
Tensile Modulus	≥ 1700	MPa	ISO 527-1,-3

Thermal properties

Property	Value	Unit of measurement	Method
Relative temperature index	80	°C	UL 746 B

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Other properties			
Property	Value	Unit of measurement	Method
Water absorption	0,2	%	following ISO 62

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.

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This product is not designated for the manufacture of a medical device (1) or of intermediate products for medical devices. This product is also not designated for Food Contact (2), including drinking water, or cosmetic applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or cosmetic applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose. Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro.

(1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

(2) As defined in Commission Regulation (EU) 1935/2004.

This is a trial 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 damage, of whatever nature, arising out of such use. Commercialisation and continued supply of this material are not assured. Its supply may be discontinued at any time.

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