

# Makrofol<sup>®</sup> LM905 2-4 160009

## Characterization

Makrofol<sup>®</sup> LM905 2-4 160009 is an extruded polycarbonate film.

## Properties / Applications

Makrofol<sup>®</sup> LM905 2-4 160009 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 is applied. Typical applications are automotive instrument panels and backlight displays.

Makrofol<sup>®</sup> LM905 2-4 160009 is available in standard thicknesses of 0.012" and 0.020" (300 microns and 500 microns). The surface structure of Makrofol<sup>®</sup> LM905 2-4 160009 is one side very fine matte and one side fine matte. As with any product, use of Makrofol<sup>®</sup> LM905 2-4 160009 in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

## Typical Properties\*

Property	Test Method	Unit	Value
<b>General</b>			
Density	ISO 1183 20°C, Method C	g/cm <sup>3</sup>	1.2
Gloss	ISO 2813, 60°	Digits	≥ 80
top- surface	backprinted black		< 6
back- surface			
Roughness, R3z	acc. to ISO 4287/88,	µm	< 0.5
top- surface	Lm 12.5 mm; lc 2.5		< 11
back- surface	mm average over 3-5 measurements		
<b>Optical</b>			
Light Transmission	ISO 13468-2	%	81
300 µm, back- surface			78
300 µm, top- surface			73
500 µm, back-surface			73
500 µm, top-surface			
Haze	ASTM D 1003	%	100
300 µm, back- surface			100
300 µm, top- surface			100
500 µm, back-surface			100
500 µm, top-surface			
Half-Power Angle	following DIN 5036	Degree	29
300 µm, top-surface			41
500 µm, top-surface			

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## Typical Properties\* (CONT'D)

Property	Test Method	Unit	Value
<b>Mechanical</b>			
Stress at Break	ISO 527-1,-3	MPa	≥ 70
Machine Direction			≥ 70
Transverse Direction			≥ 70
Strain at Break	ISO 527-1,-3	%	≥ 115
Machine Direction			≥ 115
Transverse Direction			≥ 115
Tensile Modulus	ISO 527-1,-3	MPa	≥ 2,400
Machine Direction			≥ 2,300
Transverse Direction			≥ 2,300
<b>Thermal</b>			
Relative Temperature Index	UL 746 B	°C	80
<b>Electrical</b>			
Surface Resistivity	following DIN IEC 60093	Ohm	10 <sup>16</sup>
<b>Other</b>			
Water Absorption	following ISO 62	%	0.2

*\*These items are provided as general information only. They are approximate values and are not part of the product specifications.*



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## Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on its risks, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., safety data sheets and product labels. For further information contact your Covestro LLC representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

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Document contains important information and must be read in its entirety.

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Product Datasheet