

# Makrofol® DE 1-4 010181

## Description and Application Information

Makrofol® DE 1-4 010181 is a translucent white colored extrusion film based on Makrolon Polycarbonate. It comprises all of the well known advantages of Polycarbonate such as excellent mechanical and optical properties. The surface combination of Makrofol® DE 1-4 010181 is gloss/very fine matte. It stands out due to its good printing quality and formability. It is suitable for High Pressure Forming process (HPF) and Film-Insert-Molding process (FIM).

Makrofol® DE 1-4 010181 is available in standard thickness of 500 µm. Typical applications are illuminated front panels, labels and control elements of electronic devices (white goods).

## Guide data\*

General properties			
Property	Value	Unit of measurement	Method
Density	1,2	g/cm <sup>3</sup>	ISO 1183, 20°C method C
Thickness	500	µm	ISO 4593
Gloss, 60° 1-side	≥ 99	Digits	ISO 2813
Gloss, 60° 4-side	≤ 12	Digits	ISO 2813
Roughness R3z 1-side	≤ 0,5	µm	following ISO 4287/88
Roughness R3z 4-side	≤ 11	µm	following ISO 4287/88
Mechanical properties			
Property	Value	Unit of measurement	Method
Tensile Modulus	≥ 2000	MPa	ISO 527-1,-3
Stress at break, parallel	≥ 60	MPa	ISO 527-1,-3
Strain at break, parallel	≥ 100	%	ISO 527-1,-3
Thermal properties			
Property	Value	Unit of measurement	Method
Shrinkage, parallel 130°C, 1 h	≤ 0,5	%	following IEC 60674-2

\* These values provide general information and are not part of the product specification.

## 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.



# Makrofol<sup>®</sup> DE 1-4 010181

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

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

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Editor: CAS Specialty Films  
Covestro AG  
Kaiser-Wilhelm-Allee 60  
D-51373 Leverkusen  
[www.makrofol.com](http://www.makrofol.com)

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