

Makrofol® EC 060041

Description and Application Information

Makrofol® EC 060041 is a partly bio-based, high transparent polycarbonate film made from plant-based raw material*. The raw material derived partially from plant based starch from widely available plant feedstock. Compared to similar fossil fuel-based products, the carbon footprint** of Makrofol® EC 060041 is significantly reduced. The film also offers good optical and mechanical properties, chemical resistance, scratch resistance and UV weatherability.

The product is available in thicknesses, 125 µm, 250 µm and 375 µm in both gloss – gloss (1-1) and gloss – fine matte (1-4) surface textures.

Makrofol® EC 060041 can be used for multiple applications in market segments like, automotive, electrical / electronics, graphics and packaging.

* not bio-degradeable

** based on internal study

Preliminary guide data

General properties			
Property	Value	Unit of measurement	Method
Density	1,36	g/cm ³	ISO 1183, 20°C method C
Thickness	125, 250, 375	µm	ISO 4593
Gloss, 60° 1-side	≥ 85	°	ISO 2813, angle 60°, backprinted black
Roughness R3z, 1-side	≤ 0,5	µm	following ISO 4287/88
Roughness R3z, 4-side	3 - 6	µm	following ISO 4287/88
Mechanical properties			
Property	Value	Unit of measurement	Method
Tensile Modulus, parallel	≥ 2200	MPa	ISO 527-1,-3
Tensile Modulus, across	≥ 2200	MPa	ISO 527-1,-3
Stress at break, parallel	≥ 55	MPa	ISO 527-1,-3
Stress at break, across	≥ 55	MPa	ISO 527-1,-3
Tensile strength at break, parallel	≥ 70	MPa	ISO 527-1,-3
Tensile strength at break, across	≥ 70	MPa	ISO 527-1,-3

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Optical properties			
Property	Value	Unit of measurement	Method
Light transmittance	> 90	%	ISO 13468-2, following DIN 5036
UV resistance 1000 h @ 50 W/m ²	≤ +/- 0,3	delta L	ISO 4892-2B
	≤ +/- 0,1	delta a	
	≤ +/- 0,1	delta b	
Other properties			
Property	Value	Unit of measurement	Method
Water absorption (saturation)	0,3	%	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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Editor: CAS Specialty Films
Covestro AG
Kaiser-Wilhelm-Allee 60
D-51373 Leverkusen
www.makrofol.com

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Preliminary Product Datasheet