



# MAKROFOL<sup>®</sup> FR 7-2 000000

## Characterization

Makrofol FR 7-2 000000 is a clear extrusion film based on Makrolon<sup>®</sup> polycarbonate.

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## Properties / Applications

Makrofol FR 7-2 000000 is glare free and scratch resistant film has been developed to be highly flame retardant and carries a UL 94 V-0 rating. Typical applications are trade show displays, light diffusion, spacers and other applications requiring a UL 94 V-0 rating.

Makrofol FR 7-2 000000 is available in various standard thicknesses from 0.010 " to 0.020 " (250 microns to 500 microns). Other thicknesses are available on request. The surface combination of Makrofol FR 7-2 000000 is one side velvet and one side very fine matte. As with any product, use of Makrofol FR 7-2 000000 in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

# MAKROFOL<sup>®</sup> FR 7-2 000000

## Typical Properties\*

Property	Test Method	Unit	Value
<b>General</b>			
Specific Gravity	ASTM D 792		1.30
Conversion Factor		ft <sup>2</sup> /lb•mil   m <sup>2</sup> /kg•mm	148   0.769
Gloss 60° top side black inked second surface	ASTM D 2457	gloss unit	3 to 6
Roughness, R3z, top side	ISO 4287/88	µm	16 to 23
Roughness, R3z, reverse side	ISO 4287/88	µm	≤ 9.0
Surface			velvet/v.f. matte
<b>Mechanical</b>			
Tensile Strength, Yield	ASTM D 882	psi	10,600
Tensile Strength, Break	ASTM D 882	psi	8,530
Elongation at Break	ASTM D 882	%	60
Tear Strength, Initiation	ASTM D 1004	lb/in	1,100
<b>Thermal</b>			
Coefficient of linear thermal expansion parallel 20°C to 120°C	DIN 53752	10 <sup>-6</sup> /K	70
Coefficient of linear thermal expansion across 20°C to 120°C	DIN 53752	10 <sup>-6</sup> /K	70
Heat Deflection Temperature 1.82 MPa	ASTM D 648	°F	270
0.45 MPa			288
Vicat Softening Temperature, Rate A	ASTM D 1525	°F	297
<b>Flammability</b>			
UL Listing	UL 94 V-0	min. thickness	0.010" (250 µm)
<b>Optical</b>			
Haze	ASTM D 1003	%	89
Light Transmittance	ASTM D 1003	%	> 70 (> 20 mil) > 80 (< 20 mil)
Yellowness Index	ASTM E 313		1
<b>Other</b>			
Water Absorption (immersion at 73°F/24h)	ASTM D 570	%	0.33

\*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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 **Makrofol<sup>®</sup>**  
Product Datasheet