

MACal® 1169 and 1179 Print & Cut

PRODUCT DESCRIPTION

MACal 1169 & 1179 Print & Cut are mirror-like printable films. Their unique smooth silver and gold finish allows for top-of-the-range luxurious decoration of flat surfaces. They are compatible with most printing platforms (Solvent, Eco Solvent, UV, Latex), a suitable overlaminates is available to protect the print, especially when applied outside. Lean, fast and straightforward plotter cutting, as well as a fast weeding is possible even for small letters and fine lines. These materials provide a stunning 'mirror like' finish on both sides of the product for eye-catching designs

Face Material: 120 µm double layer film made of a polymeric stabilized calendered cadmium-free vinyl on a metallized PET

Adhesive: High quality clear solvent based permanent acrylic adhesiv

Liner: Matt PET liner , 75µm

TYPICAL USE

MACal 1169 & 1179 Print & Cut have been created for medium term interior and exterior marking applications: window graphics, signs, etc. They have been designed for most Solvent, Eco Solvent, UV, Latex printing platforms and trouble-free computer cutting.

PROCESSING

Printing

Especially designed for solvent based, eco-solvent, mild solvent, Latex and UV inkjet printing on wide-format printing equipment. To achieve optimal protection and durability, MACal 1100 Series needs to be laminated with LF 9700 Series. To achieve the best possible print quality, please make sure that the correct ICC profiles or printer settings are used. Profiles can be obtained from our subsidiaries or distributors, or can be downloaded from: www.mactacgraphics.eu.

For further information on printing, application and removal, please refer to "TB 4.1 Guidelines on handling, converting and applying Mactac Digital media". To ensure application suitability, always test the proposed construction under actual application and end-use conditions before going into full production.

Computer cutting

Clean, quick, trouble-free cutting with most plotters. Although the product can directly be printed and cut, it is recommended to wait min 24h, ideally 48h in between the 2 steps to allow solvent evaporation and minimize risks related to solvents presence (edge lifting, imprecise cut...). The combination of a more rigid metal blade holder with a tougher blade (like the one normally used in sandblast vinyls) helps the cutting step at lower force. Adjustment of the cutting depth is important: if the cut is too deep this could result in the backing coming away with the adhesive when the vinyl is transferred to Application Tape.

Application

The transfer of the cut vinyl onto the Application Tape should always be performed by removing the liner from the pressure-sensitive material (i.e. with the PVC face downwards onto the working surface) and not by lifting off the Application Tape. MACal 1169 & 1179 Print & Cut can be applied with the dry or wet application method on flat surfaces.

Edge sealing

Where exposure to chemicals and solvent spillage is likely to occur, edge sealing of decals with a varnish will prevent edge lift.

Important remark

All surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination. The compatibility of paints and lacquers should be tested by the end-user, prior to use. A felt protected squeegee should be used to minimize scratches when applying product.

SHELF LIFE

2 years when stored at 15 to 25°C and 50 % relative humidity.

PHYSICAL PROPERTIES (TYPICAL VALUES)

Average Values Test Method

Thickness		
Film + Adhesive (micron)	145	ISO 534
Face Material data, 23°C		
Tensile Strength (N/15mm)	> 50	DIN ISO 527-3
Elongation at Break (%)	> 60	

Adhesive data, 23°C (N/25 mm)		
Peel adhesion 180° on stainless steel		
- 20 min. residence	16	FTM1
- 24 hour residence	19	FTM1
- 1 week residence	21	FTM1
Dimensional stability		
Shrinkage (1 week at 70°C applied on Aluminium)	Max. 0.5 mm	FTM14
Temperature ranges		
Application (°C)	+8 to +40	
End-use (°C)	-40 to +90	
Flammability		
Sample mounted on aluminium	self-extinguishing	EN 13501-1
Solvent and chemical resistance		
Resistance to most:	oils and grease, fuel, aliphatic solvents, weak acids, salts and alkalis	

EXPECTED DURABILITY

The expected durability of the unprocessed product in central Europe (Zone 1) is :

Indoor

MACal 1169 & MACal 1179 : 3 years

Outdoor

MACal 1169 & MACal 1179 : 3 years

This information is based on successful real life experience and artificial aging according to ISO 4892-2.

Note : Exposure to severe temperatures and ultraviolet light, as well as conditions in southern European countries, and also in tropical, sub-tropical or desert regions, will cause a more rapid deterioration. This also applies to polluted areas, high altitude, horizontal and south-facing exposure.

DISCLAIMER

For more information on the durability and exposure please visit the “Mactac Technical Bulletin TB 7.5 Outdoor Durability of Mactac Graphics - Self-adhesive films” on the www.mactacgraphics.eu website.

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