

MACal® 1169 and 1179 Print & Cut

Technical Data Sheet

PRODUCT DESCRIPTION

MACal 1169 & 1179 Print & Cut are smooth, double side metallized films coated with a permanent acrylic adhesive giving excellent dimensional stability. MACal 1169 & 1179 Print & Cut provide nice gold/silver metal finish on both sides of the product for eye-catching markings.

CONSTRUCTION

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 adhesive.

Liner :

Matt PET liner , 75µm

TYPICAL USES

MACal 1169 & 1179 Print & Cut have been created for medium term interior and short term exterior marking applications : window graphics, signs, flat vehicle surfaces.... They have been designed for most inkjet printing platforms and trouble-free computer cutting.

EXPECTED DURABILITY

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

- 3 years indoor
- 3 months outdoor for the gold version ; 6 months for the silver one

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.

SHELF LIFE

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

PHYSICAL PROPERTIES (Typical values)

Thickness (mm) (Film + adhesive) ISO 534

0.145

Face Material Data, 23°C DIN 53455-5

Tensile strength : ≥ 50 N/15mm

Elongation at break : ≥ 60 %

Adhesive Data, 23°C FTM 1

Peel adhesion 180° on stainless steel (N/25mm)

- 20 min. residence : 16

- 24 hours residence: 19

- 1 week residence : 21

Dimensional stability FTM 14

Shrinkage (1 week at 70°C) ≤ 0.5mm

Temperature ranges :

Application : + 8°C to + 40°C

End-use : - 40°C to + 90°C

Flammability ISO 3795

Sample mounted on aluminium : self-extinguishing.

Solvent and chemical resistance

Resistant to most oils and grease, fuel, aliphatic solvents, weak acids, salts and alkalis.

PROCESSING

Printing

This product is designed for solvent, eco-solvent, Latex and UV inkjet printing on wide-format printing equipment.

If printed on UV, please adapt your print speed and curing settings. Please refer to the printer manufacturer settings for thin, soft media.

To achieve the best possible print quality, please make sure that the correct ICC profiles and printer settings are used.

The ICC profiles are provided solely as a customer resource. Print environments, the individual nature of printing systems, inks and software can significantly affect output. It is the customer's responsibility to determine the suitability of any profile for use in their specific print environment.

Print room conditions: Print in conditioned pressroom at ± 23°C (73°F) and 50% RH.

When printing with HP latex machines : attach the printing media to the winding core to avoid product sliding slightly during printing. Alignment cell may be disturbed by the mirror finish of the product : as for reflective material, a small stripe of opaque application tape can be applied on the back of the product to facilitate the printing process.

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.

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.

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 NOTICE

All MACTac products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects.

Published information concerning MACTac products is based upon research which the Company believes to be reliable although such information does not constitute a warranty.

Because of the variety of uses of MACTac products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. The seller shall not be liable for damages in excess of the purchase price of the product nor for incidental or consequential damages.

All specifications are subject to change without prior notice.