

MACal® 8900 PRO

Technical Data Sheet

PRODUCT DESCRIPTION

MACal 8900 PRO are calendered soft vinyl films coated with a semi-permanent acrylic adhesive giving excellent dimensional stability.

MACal 8900 PRO have been specially developed for trouble-free computer cutting and fast weeding, even for small letters and fine lines.

Furthermore, if required, these films can be removed from the substrate, without leaving adhesive residue, for periods of up to 2 years after application.

CONSTRUCTION

Face material :

Calendered vinyl film, 70 µm thick, cadmium-free.

Adhesive :

Semi-permanent solvent based acrylic adhesive.

Liner :

Highly stable 135 gsm white kraft paper with green backprinting.

For white vinyls the liner is coated with a grey silicone coating to improve the contrast with the film colour.

NB : **CONTRAST** ensures a clear view during the stripping process therefore improving productivity.

TYPICAL USES

MACal 8900 PRO is a medium term marking film designed for outdoor applications (vehicle marking, window graphics, signs...) and for indoor applications (exhibition stands).

Application is possible at temperatures down to 0°C.

DURABILITY

4 years : black and white.

3 years : all colours.

These use-life estimates are based upon accelerated ageing studies and outdoor exposure, under conditions experienced in vertical exposure and in "normal" temperate climates.

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
0.090

Face Material Data, 23°C DIN 53455-5

Tensile strength : > 25 N/15mm

Elongation at break : > 150 %

Adhesive Data, 23°C FTM 1

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

- 20 min. residence: 4.0

- 24 hours residence: 5.5

- 1 week residence: 7.5

Dimensional stability FTM 14

Shrinkage (48 hours at 70°C) : < 0.1 %

(25 cm x 25 cm, sample mounted on aluminium)

Temperature ranges :

Application : + 0°C to + 40°C

End-use : - 40°C to + 70°C

Flammability ISO 3795

Sample mounted on aluminium : self-extinguishing.

Solvent and chemical resistance

Water, water and detergent, alcohol : unaffected.

Oil, gasoline, gasoline-oil : affected (lifting around edges).

PROCESSING

Computer cutting

Clean, quick, trouble-free cutting with most plotters.

Adjustment of the cutting depth is important: if the cut is too deep this could result in the paper splitting and 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 and not by lifting off the Application Tape.

All surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination.

Note also that the wet application method is not recommended.

Cleaning

It is strongly recommended not to wash the decorated surfaces within 48 hours after the application.

Important remark

Some adverse reactions can occur when applying MACal 8900 PRO to certain substrates, for example: acrylics, polycarbonate, polystyrene, plasticized PVC, certain paints and lacquers. These reactions could take the form of cracks, swelling, ghosting and variance in adhesion performance. Therefore, as with any critical application, it is recommended to carry out suitability tests.

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