

MACal® 9800 P

Technical Data Sheet

PRODUCT DESCRIPTION

MACal 9800 P are polymeric stabilized calendered soft vinyl films that are coated with a durable, high performance acrylic based pressure-sensitive adhesive. The adhesive is protected with a 135 gsm bleached kraft liner.

CONSTRUCTION

Face material :

Stabilized calendered vinyl film; 0.080 mm thick.

Adhesive :

Durable transparent acrylic pressure-sensitive.

Liner :

Highly stable 135 gsm bleached kraft paper.

TYPICAL USES

MACal 9800 P series is designed for permanent interior and exterior marking applications which have a long term life requirement.

These films offer good conformability to simple contours and flat-surfaces, and are ideally suited for containers, vehicles, caravans markings, etc.

MACal 9800 P is generally converted into printed decals but also in cut and prespaced texts and logo's.

EXPECTED DURABILITY

Unprinted film

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

White and black : 7 years

Transparent : 5 years

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

Printed film

Satisfactory performance for up to 7 years can be obtained with some screen inks and varnishes. However, assurance of ink performance in all cases should be first obtained from the ink supplier.

Note : Exposure to severe humidity 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 \pm 50 % relative humidity.

PHYSICAL PROPERTIES (Typical values)

Thickness mm (Film + adhesive) ISO 534
0.110

Face Material Data, 23°C DIN ISO 527-3

Tensile strength : > 27 N/15mm

Elongation at break : > 150 %

Adhesive Data, 23°C FTM 1

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

- 30 min. residence: 16

- 24 hours residence: 19

- 1 week residence: 20

Dimensional stability FTM 14

Shrinkage (48 hours at 70°C) : < 0.3mm

Temperature ranges :

Application : + 10°C to + 40°C

End-use : - 40°C to + 90°C

N.B. : for lower temperatures, please consult us.

Flammability ISO 3795

Sample mounted on aluminium : self-extinguishing.

Chemical resistance : A sample is prepared by adhering the film to a metal substrate 24 hours before the test. It is then submitted, either to a projection test or a total immersion in chemical or solvents solutions. After a fixed period of time has elapsed, the sample is removed, dried and examined for adhesion.

Petrol resistance : A sample is prepared in the same manner as for the chemical resistance test and is sprayed several times with petrol, followed by drying at each stage.

Fuel under test

- Petrol - low octane : good

- Petrol - high octane : good

PROCESSING

Printing

During printing, it is important to carefully dry the inks : retained solvents could lead to plasticization with subsequent application troubles and poor weathering properties.

We recommend to maintain an unprinted area of 3-4 mm on the edges of the printed decal.

Application

Application of MACal 9800 P Series is made easier if a MACtransfer Application Tape is used.

Edge sealing and varnishing

Where exposure to chemical and solvent spillage is likely to occur, edge sealing of decals with a varnish will prevent edge lift. Correct varnishing of decals gives greater protection, and hence longer end-use life, against any prolonged effect of weathering, abrasion and other erosive effects such as frequent cleanings.

IMPORTANT NOTICE

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