

MACal[®] 8400

Technical Data Sheet

PRODUCT DESCRIPTION

MACal 8400 is a glossy transparent coloured film used in the manufacture of illuminated signs made from opaline substrates.

MACal 8400 is manufactured in such a way so as to guarantee uniform colour reproduction, and is coated with a long-life durable, highly cohesive acrylic pressure-sensitive adhesive, which is protected with a high quality siliconized kraft paper liner.

CONSTRUCTION

Face material :

Glossy transparent coloured vinyl film, 80 µm thick, cadmium-free.

Adhesive :

Acrylic based pressure-sensitive, very cohesive and highly durable.

Liner :

Highly stable 140 gsm bleached kraft paper with blue backprinting.

TYPICAL USES

Decoration and identification of illuminated signs made from opaline substrates such as acrylic or stretched fabrics. Suitable for outdoor and indoor applications.

DURABILITY

3 years.

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

SHELF LIFE

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

PHYSICAL PROPERTIES (Average values)

Thickness (mm) (Film + adhesive) ASTM D-645
0.105

Face Material Data, 23°C DIN 53455

Tensile strength : ≥ 1.17 kN/m

Elongation at break : ≥ 100 %

Adhesive Data, 23°C

FTM 1

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

- 20 min. residence : > 12

- 1 week residence : > 18

Dimensional stability

FTM 14

Shrinkage (48 hours at 70°C) : < 0.5 %

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

Temperature ranges :

Application : + 10°C to + 40°C

End-use : - 40°C to + 70°C

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

Flammability

ISO 3795

Sample mounted on aluminium : self-extinguishing.

Solvent and chemical resistance

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

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 (i.e. with the PVC face downwards onto the working surface) and not by lifting off the Application Tape.

We recommend the 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.

Care should be taken when selecting a substrate for use in illuminated devices with self-adhesive materials. Some substrates, e.g. polycarbonate, can cause problems because of "bubbling".

It is therefore recommended that trials be conducted to establish the compatibility of the MACal 8400 vinyl film with the application surface.

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.