

# MACal® 9700 PRO

## *Technical Data Sheet*

### **PRODUCT DESCRIPTION**

MACal 9700 Pro is translucent when backlit, and opaque when not illuminated, and is manufactured in such a way to guarantee uniform colour reproduction.

MACal 9700 Pro is coated with a long-life durable, highly cohesive acrylic pressure-sensitive adhesive, and protected with a high quality siliconized kraft paper liner.

### **CONSTRUCTION**

#### **Face material :**

80 µm matt translucent polymeric stabilized vinyl film, cadmium-free.

#### **Adhesive :**

High quality acrylic solvent based adhesive, very cohesive and extremely durable.

#### **Liner :**

Highly stable 135 gsm white kraft paper with blue backprinting.

### **TYPICAL USES**

Decoration and identification of internally illuminated signs made from glass, acrylic, stretched plasticized fabric, etc.

Suitable for outdoor and indoor applications.

### **EXPECTED DURABILITY**

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

5-7 years

This information is based on successful real life experience and artificial aging according to ISO4892-3.

**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, 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  
0.115

#### **Face Material Data, 23°C** DIN 53455-5

Tensile strength : > 28 N/15mm

Elongation at break : > 150 %

#### **Adhesive Data, 23°C** FTM 1

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

- 20 min. residence: 20

- 24 hours residence: 22

- 1 week residence: 24

#### **Dimensional stability** FTM 14

Shrinkage (48 hours at 70°C) : < 0.2 %

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

#### **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.

#### **Solvent and chemical resistance**

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

#### **Important notice**

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 9700 PRO with the application surface.

### **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.

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