

# MACcrystal 8400

## Technical Data Sheet

### PRODUCT DESCRIPTION

MACcrystal 8400 is a glossy transparent coloured film used in the manufacture of illuminated signs made from opaline acrylic sheets and for windows decoration.

MACcrystal 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

MACcrystal 8400 can be used for windows graphics and for illuminated signs.

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: 3 years.

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

**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  
0.105

**Face Material Data, 23°C** DIN ISSO 527-3

Tensile strength : > 30 N/15mm

Elongation at break : > 150 %

### **Adhesive Data, 23°C**

FTM 1

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

- 20 min. residence: 14

- 24 hours residence: 18

- 1 week residence: 19

### **Dimensional stability**

FTM 14

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

### **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 MACcrystal 8400 with the application substrate.

**IMPORTANT NOTICE**

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