

# MAClite 4700

## Technical Data Sheet

### PRODUCT DESCRIPTION

MAClite 4700 is a tearable reflective film (Commercial Grade) providing wide-angle reflectivity of incident light and giving excellent night and day visibility.

The film consists of a layer of microscopic glass beads of high optical quality embedded in a coloured film and react as lenses. A metallized back provides the mirror surface for reflection.

### CONSTRUCTION

#### **Face material :**

Tearable Commercial Grade reflective film  $\pm 115 \mu\text{m}$  thick.

#### **Adhesive :**

High quality clear solvent based permanent acrylic adhesive.

#### **Liner :**

Highly stable 150 gsm white polyethylene coated paper.

### TYPICAL USES

MAClite 4700 is a marking film designed for 24 h a day eye-catching decoration and identification.

MAClite 4700 can only be applied on flat surfaces.

### REFLECTIVITY

At  $-4^\circ$  entrance angle and  $0.2^\circ$  observation angle MACLite 4700 has the following typical coefficient of retro reflection (cd/lx/sqm)

Reference	Typical retro reflection
MAClite 4729-00 White	80
MAClite 4709-00 Yellow	50
MAClite 4759-00 Red	14
MAClite 4739-00 Blue	4
MAClite 4749-00 Green	9

### DURABILITY

4-5 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 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

1 year when stored at 15 to 25°C and  $\pm 50 \%$  relative humidity.

### PHYSICAL PROPERTIES (Average values)

**Thickness** (mm) (Film + adhesive) ASTM D-645  
0.140

**Face Material Data, 23°C** DIN 53455

Tensile strength :  $> 18 \text{ N/15mm}$

Elongation at break :  $< 8 \%$

**Adhesive Data, 23°C** FTM 1

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

20 min. residence :  $> 15$  (reflective film will tear)

**Dimensional stability** FTM 14

Shrinkage (48 hours at 70°C) :  $< 0.3 \%$

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

#### **Temperature ranges**

Application :  $+10^\circ\text{C}$  to  $+40^\circ\text{C}$

End-use :  $-20^\circ\text{C}$  to  $+90^\circ\text{C}$

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

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

### PROCESSING

#### **Printing**

MACLite 4700 can be printed with some screen inks and varnishes. However assurance of ink performance in all cases should be first obtained from the ink supplier.

#### **Computer cutting**

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

#### **Application**

The transfer of the cut material onto the Application Tape should always be performed by removing the liner from the pressure-sensitive material (i.e. with the film downwards onto the working surface) and not by lifting off the Application Tape.

MACLite 4700 can only be applied on flat surface with the dry or the wet method.

Repositioning of the film is limited.

#### **Important remark**

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

The compatibility of paints and lacquers should be tested by the end-user, prior to use.

#### **Edge sealing and varnishing**

Where exposure to chemicals 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 extends the use-life against prolonged effects of weathering, abrasion and other effects such as frequent cleanings.

**IMPORTANT NOTICE**

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