

# MAClite 5700

## *Technical Data Sheet*

### **PRODUCT DESCRIPTION**

MAClite 5700 is a flexible reflective film (Engineering 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. Thanks to its flexibility, MAClite 5700 is easy to cut and to weed and can be applied on curved or corrugated surfaces.

### **CONSTRUCTION**

#### **Face material :**

Flexible Engineered Grade reflective film  $\pm 115 \mu\text{m}$  thick.

#### **Adhesive :**

High quality white solvent based permanent acrylic adhesive.

#### **Liner :**

Highly stable 150 gsm white polyethylene coated paper.

### **TYPICAL USES**

MAClite 5700 is a marking film designed for 24 h a day eye-catching decoration and identification.

MAClite 5700 is designed for vehicle markings where application on riveted or corrugated surfaces may be required.

### **REFLECTIVITY**

At  $-4^\circ$  entrance angle and  $0.2^\circ$  observation angle MAClite 5700 has the following typical coefficient of retro reflection (cd/lx/sqm)

Reference		Typical retro reflection
MAClite 5729-00	White	70
MAClite 5709-00	Yellow	50
MAClite 5701-00	Orange	20
MAClite 5759-00	Red	5
MAClite 5739-00	Light Blue	6
MAClite 5739-01	Dark Blue	4
MAClite 5749-00	Green	7
MAClite 5789-00	Black	3

### **DURABILITY**

5-7 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 and south-facing exposure.

### **SHELF LIFE**

1 year when stored at  $15$  to  $25^\circ\text{C}$  and  $\pm 50\%$  relative humidity.

### **PHYSICAL PROPERTIES** (Average values)

**Thickness** (mm) (Film + adhesive)      ASTM D-645  
0.150

**Face Material Data,  $23^\circ\text{C}$**       DIN 53455

Tensile strength      :  $\geq 1.5 \text{ kN/m}$

Elongation at break      :  $\geq 100\%$

**Adhesive Data,  $23^\circ\text{C}$**       FTM 1

Peel adhesion  $180^\circ$  on stainless steel (N/25mm)

- 20 min. residence :  $> 20$

- 1 week residence :  $> 26$

**Dimensional stability**      FTM 14

Shrinkage (48 hours at  $70^\circ\text{C}$ ) :  $< 0.3\%$

(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 5700 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 5700 can be applied with the dry application method on slightly curved, riveted and embossed surfaces with the aid of a heat gun.

#### **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**

*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.*

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