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Version #5 (0217)
Approved by J. S.

Product

MAClite® 5700 Reflective Vinyl Series

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 face is made with a layer of microscopic glass beads of a high optical quality. These are embedded into a colored film, which then act as lenses. A metallized back provides the mirrored surface for reflection.

The film is coated with a white, high strength, permanent, acrylic adhesive. A 92# white polycoated paper liner offers stability and excellent layflat qualities. MAClite 5700 is easy to cut, easy to weed and very flexible, so it can be applied over rivets and corrugated surfaces. It is available in a number of retro-reflective colors.

MAClite 5700 is designed for vehicle markings, over complex surfaces and for 24 hour-a-day eye-catching decorations and vehicle identifications.

Physical Properties

Property	Typical Values	Test Method
Thickness, inches (µm) Film plus adhesive	0.006 (150)	ASTM D-645
Peel Adhesion lb./in. (N/25mm) 180° on Stainless Steel - 30 min - 1 week	4.6 (20) 5.9 (26)	ASTM D-903
Face Material Data, 68°F (20°C) Tensile strength lb./in. (N/m) Elongation %	≥8.5 (≥1.5) ≥100	DIN 53455
Dimensional Stability, (%) 48 hours @ 158°F (70°C)	<0.3	FTM 14 Bonded to aluminum
Temperature Range Application: End Use:	50° to 104°F (10° to 40°C) -4° to 194°F (-20° to 90°C)	
Flammability	Self-extinguishing	ISO 3795

- Values given are typical and are not necessarily for use in specification.

Suggested Print Methods*

Screen Printing:		HP Indigo	<input type="checkbox"/>
UV Cured	<input checked="" type="checkbox"/>	Off-set	<input type="checkbox"/>
Solvent	<input checked="" type="checkbox"/>	UV Off-set	<input type="checkbox"/>
WF Digital: UV Inkjet	<input checked="" type="checkbox"/>	Thermal Transfer	<input checked="" type="checkbox"/>
Eco-solvent	<input checked="" type="checkbox"/>	Flexographic *	<input type="checkbox"/>
True solvent	<input checked="" type="checkbox"/>	UV Flexographic	<input type="checkbox"/>
Latex	<input type="checkbox"/>	Narrow Web UV Inkjet	<input type="checkbox"/>

* Mactac does not guarantee digital printability on MAClite 5700. Reflective films cannot be ICC profiled therefore you must first test print to determine suitability on your printer.

Printing Recommendations

- Flat, P.O.P. type, up to 5-year applications we recommend Nazdar 3600 UV inks. Test first for adhesion. Sometimes Reflective films need an alcohol wipe prior to printing to achieve good ink bond.
- For 5 - 7 years requirements in conformable graphics like fleet markings, or Marine graphics, we recommend Nazdar 3500 UV inks.

Chemical Resistance

MAClite 5700 is resistant to most oils and grease, fuel, aliphatic solvents, weak acids, salts and alkalis.

Reflectivity

At -4° entrance angle and 0.2° observation angle, MAClite 5700 has the following typical coefficient of retro-reflection (cd/lx/m²):

<u>Reference</u>	<u>Typical retro-reflectance</u>
White	70
Yellow	50
Orange	20
Red	5
Light Blue	6
Dark Blue	6
Green	7
Black	3

Limitations

- 1) The user is responsible for determining the product's suitability, including adhesion and if needed, removal characteristics when used in applications other than listed specifically in this Performance Guide.
- 2) If there are any questions about applications, please contact your Mactac sales representative to discuss your requirements for recommendations
- 3) If this is a printed Performance Guide it is an uncontrolled document. Please check the Mactac website for the latest, most up-to-date version.



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Recommendations

- MAClite 5700 can be applied 'wet' or 'dry'; however the dry method is preferred.
- All surfaces must be cleaned from dust, dirt, oil, grease or any other contaminate prior to application.
- Where exposure to chemicals or fuel spills is likely to occur, edge sealing the graphics with varnish will prevent edge lift.
- MAClite 5700 can be printed with some screen inks. However, guarantee of ink performance should be first obtained from the ink supplier.
- Application of MAClite 5700 is made easier if **Mactac** application tape is used.

Durability

Indoor and 5-7 years outdoors. This use-life estimate is based upon accelerated age studies. Please note that exposure to severe temperatures, ultra-violet light and also tropical, sub-tropical or desert regions will cause more rapid deterioration. This also applies to polluted areas, high altitude and south facing exposure.

Shelf Life

One year when stored at 75°F (24°C) and 50% relative humidity or less.

IMPORTANT NOTICE: The information given and the recommendations made herein are based on our research and are believed to be accurate, but no guarantee of their accuracy or completeness is made. In every case, user shall determine before using any product in full scale production, or in any way, whether such product is suitable for user's intended use for their particular purpose under their own operating conditions. User assumes all risk and liability whatsoever in connection with their use of any product. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose, or any other warranty, express or implied. No representative of ours has any authority to waive or change the foregoing provisions, and no statement or recommendation not contained herein shall have any force of effect unless in an agreement signed by the officers of seller and manufacturer. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without authority from the owner of the patent. The following is made in lieu of all warranties, express or implied: Seller's and manufacturer's only obligation shall be to replace or credit such quantity of the product proved to be defective at its discretion.

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