

Product

MACcast® 6600 High Performance Cast Vinyl Series

Product Description

MACcast 6600 is a premium Mactac film designed for applications over complex curves like rivets, corrugations and other irregular surfaces. The face is a 2.0-mil cadmium-free cast vinyl, durable yet, highly flexible for conformability over difficult surfaces with a high gloss finish and designed for superior cutting and weed ability. The product is coated with a high performance, permanent, clear solvent acrylic adhesive protected with 78# bleached white kraft liner or 90# *Polycoated* for stability and layflat. The products exhibit excellent dimensional stability in high performance permanent marking applications that require up to 8 years outdoor durability. Mactac offers a wide variety of standard, opaque, high gloss colors with an additional twenty metallic-flake films.

Typical Applications

- Fleet marking
- Container decals
- Marine
- Signs and Logos
- Automotive
- Equipment identification

Physical Properties

Property	Typical Values	Test Method
Thickness, inches (µm) Film plus adhesive	0.0032 (81)	ASTM D-645
Peel Adhesion lb./in. (N/25mm) 180° on Stainless Steel - 30 min - 24 hr.	4.0 (17) 5.0 (22)	ASTM D-903
Face Material Data, 68°F (20°C) Tensile strength lb./in. (N/m) Elongation %	>9.5 (1660) >100%	DIN 53455
Dimensional Stability, (%) 48 hours @ 158°F (70°C)	<0.2	10" x10" Sample Bonded to aluminum
Temperature Range Application: End Use:	40° to 104°F (5° to 40°C) -40° to 194°F (-40° to 90°C)	

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

Durability

Black, White and all opaque colors 8 year, all metallic films have a 5-year outdoor durability. This use-life estimate is based upon accelerated age studies based on vertical applications under “normal” temperate climates. Exposure to severe temperatures, ultra-violet light and tropical, sub-tropical or desert regions will cause more rapid deterioration. This also applies to polluted areas, high altitude and south facing exposure. This also applies to polluted areas, high MACmark films are not specifically intended for printing.

Printability

Printability is not warranted. However, we have created the following guidelines if printing is desired:

- 1) For **screen printing**: Limit the screen ink to two or three colors. While the liner is an excellent liner, it is designed for plotter cutting. Sometimes too much heat may result in the liner ‘waving’ a little which can cause registration issues when additional colors are used. Mactac recommends Nazdar 3500 series UV cured screen inks.
- 2) If printing **UV inkjet**; make sure the vacuum (if flatbed) is strong enough to hold the liner down tight. Typically it is, but vacuums are notoriously weak, especially as they age.
- 3) If printing with **solvent inks**; limit the inks to a total of 270% saturation. Use a generic ICC profile for either 2 mil cast or 3.5 mil calendared vinyl films as a starting point.
- 4) **Thermal transfer** printing: all MACmark **gloss** films are thermal transfer printable. We strongly recommend the use of a web cleaner prior to printing due to the potential presence of paper dust from the white kraft paper liner.

Shelf Life

Two years when stored between at 60- 80°F (15 - 25°C) and 50% relative humidity or less.

Gasoline Resistance

A sample is prepared in the same manner as for the Chemical Resistance Test and is sprayed several times with gasoline followed by drying at each stage. Low and high octane gasoline test ‘good’.

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.**

Recommendations

- 1) Application of MACcast 6600 is made easier if **Mactac** pre-spacing tape is used.
- 2) Where exposures to chemical and solvent spills are likely to occur, edge sealing of decals with a varnish or clear coat will prevent edge lift. Correct varnishing of decals gives greater protection and longer end-use life against any prolonged effect of weathering, abrasion and other erosive effects such as frequent cleaning.

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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