



PERFORMANCE GUIDE

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Approved by J. S.

PRODUCT: **Permacolor[®]**
TL2000 High Gloss

PRODUCT DESCRIPTION

Permacolor thermal overlaminating films are high quality, low temperature, heat activated films designed for the overlamination and encapsulation of graphic images. Permacolor protects the image from harmful ultra-violet (UV) light, moisture, dirt, oils and other potential contaminants. The use of Permacolor on one or two sides lends body to the image for easier handling and display.

TL2000 Series is a family of clear, glossy PET films with a heat activated, polymeric adhesive on one side. The use of *TL2000* lends depth and vibrancy to underlying images. Stiffness of the laminated image will vary with the Permacolor thickness selected as well as whether or not it is used on both sides. The thicker products provide maximum protection.

PRODUCT INFORMATION

Product Thickness:	3 mil (1/2), 5 mil (3/2) and 10 mil (7/3)
Surface Appearance:	High Gloss
pH:	7.0
Roll Wind:	Adhesive In
Core Size:	3" I.D.
Heat Seal Initiation Temperature	180° (82°C)
Recommended Storage:	Rolls should be stored on end or suspended.

PROCESSING TIPS

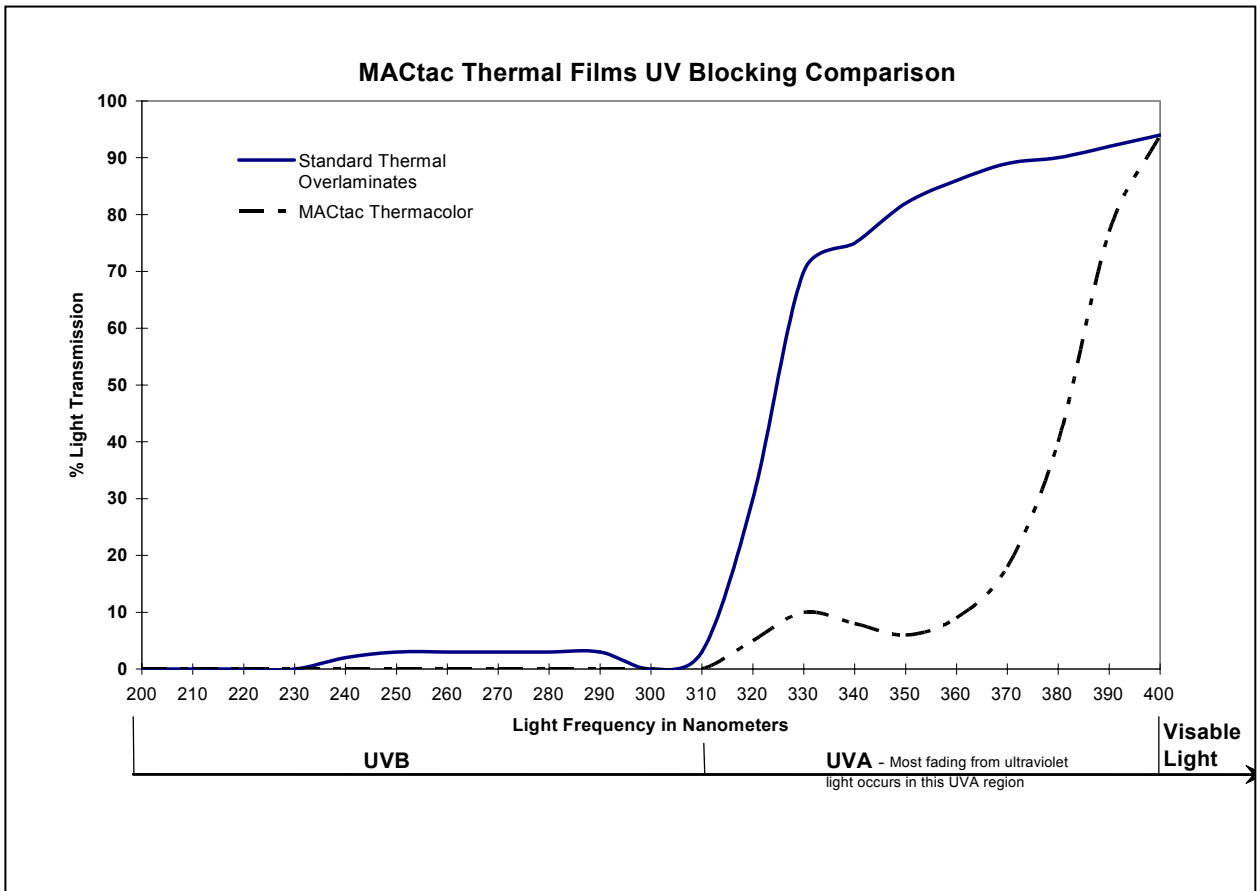
The suggested laminating temperature is approximately 190°F (88°C) for 3-mil, 200°F (94°C) for 5-mil and 210°F (99°C) for 10-mil at a throughput speed of 3 - 5 ft./minute. The temperature and/or speed may need to be adjusted depending on the specific laminating equipment, thickness of the film, and desired throughput speed.

To increase production speed, a temperature increase of 10 - 20°F (5 - 10°C) may permit operating at 10 ft./minute.

A high temperature along with a slow running speed could cause blistering or waviness in the final laminate. To correct this problem, try reducing the temperature or increasing the speed.

A low temperature and a high running speed could result in incomplete bonding, poor adhesive wet-out (sometimes referred to as "silvering"). To correct this problem, be sure adequate laminating pressure is being used, raise the temperature slightly, or slow the running speed.

Note: Users should determine their own specific lamination conditions in order to optimize performance and operating efficiency on their equipment.



SHELF LIFE

Two years when stored at 75°F (24°C) and 50% relative humidity or less. Note: MACtac recommends that rolls be stored on end or suspended from the core.

- 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.**

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

CALL 1-800-401-5005 for additional product information

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