



Chrome Graphic Film

Description

3M™ Chrome Graphic Film is a unique, 3 mil translucent film that reflects light to produce a glossy chrome appearance in a finished graphic. This medium to long-term film can be applied flat to any plastic sheet or thermoformed on high temperature copolyester sheet such as Sheffield Plastic's VIVAK HT® sheet and is designed for use on first or second surface signs in an internally-illuminated sign box

Recommended Types of Graphics and End Uses

When constructed and used as described in this and related 3M bulletins, graphics made with these films may be warranted by the 3M™ MCS™ Warranty.

- Indoor and outdoor single film layer signs mounting in an internally illuminated sign box and made as:
 - first or second surface on any flat plastic sheet
 - graphics thermoformed on VIVAK HT sheet

Limitations of End Uses

We do not normally warrant other applications, but please contact us to discuss your needs or let us suggest other 3M products.

Specifically, we do not warrant this film for the following:

- Printing
- Two layer constructions
- Application to flexible substrates or low surface energy plastic
- Film overlaps made before thermoforming
- High temperature thermoforming
- Thermoforming draws with over 50% elongation
- Thermoforming induced light leaks at butt seams

Product Data

All values given are for unprocessed film. Processing film may change certain values. If you have questions about your construction, contact Technical Service at 1-800-328-3908.

Characteristic	Description
Film	Non-vinyl, translucent
Color	Glossy chrome appearance
Light transmission	17% light transmission
Thickness	3 mils (0.8 mm)
Adhesive type	Pressure sensitive
Adhesive color	Clear
Liner	Paper
Tensile strength	7.55 pounds/inch at 73°F (1.35 kg/cm at 23°C) <i>minimum</i>
Application temperature	60°F (16°C) <i>minimum</i>
Application substrates	Thermoformed: high temperature copolyester sheet such as VIVAK HT Non-thermoformed: any flat plastic sheet
Chemical resistance	Resists mild alkalis, mild acids, and salt. Excellent resistance to water.

Warranty Information

Graphic Performance Life

The actual performance depends on the:

- Selection and preparation of the substrate
- Method of sign making
- Application and installation methods
- Exposure conditions
- Cleaning methods

Durability Table for 3M MCS Warranted Graphics

The warranty given in the Product Bulletin that is current at the time you purchased the film is the one that 3M will honor.

The warranties in this table are for graphics exposed in the U.S. in a vertical orientation. See **Warranty Notes** for how to determine other warranty combinations.

Warranted Durability	
U.S. Vertical Exposure	
Thermoformed on High Temperature Copolyester Sheet such as VIVAK HT	Flat Graphics on any Plastic Sheet, First or Second Surface
3 years	5 years

Warranty Notes

Graphic Exposure Definition



face of graphic

Vertical Exposure

The face of the graphic is $\pm 10^\circ$ from vertical.

Warranty Exceptions

These situations are not covered by the 3M MCS warranty.

- Shrinkage
- A dull appearance that results from thermoforming at too high a temperature and then stretching the film

Warranty and Limited Remedy

The following is made in lieu of all other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose: This film is warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this Product Bulletin. 3M will replace or refund the price of any 3M materials that do not meet this warranty within the specified time periods. See the worldwide 3M MCS Warranty (www.Scotchprint.com or Fax-on-Demand), which gives the terms and limitations of the warranty.

These remedies are exclusive. In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor or non-3M materials charges.

Fabrication

Refer to Instruction Bulletin 5.16 for thermoforming film on plastic. Also heed the following information.

- **Diffusion.** Without diffusion, light sources will be seen through the chrome film.
- **Surface liner.** Always remove the protective surface liner from the film after applying it to the substrate and before drying.
- **Thermoforming temperature.** For the best results, use the lowest possible thermoforming temperature. Film temperatures over 300°F (149°C) may cause the chrome appearance to dull as the film is stretched.
- **Butt seams.** Use precisely matched butt seams or overlaps after thermoforming. Butt seams done before thermoforming are likely to separate and cause a light leak.
- **Edge sealing.** If needed, use 3M™ Tape SP4114 for edge sealing.

Application Tape

For premasking large parts of a graphic with the liner on or off, use 3M™ Premasking Tape SCPM-3.

If small parts (less than 8 inches) need to be prespaced, use 3M™ Prespacing Tape SCPS-2.

Shelf Life, Storage and Shipping

Activity	Recommendation
Shelf life	Total shelf life: 2 years Up to 2 years unprocessed, OR process within 1 year and apply within 1 year of processing
Storage conditions	<ul style="list-style-type: none"> • 100°F (38°C) maximum • Out of sunlight • Clean dry area • Original container
Shipping finished graphics	Flat

Health and Safety



Caution

When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information.

To obtain MSDS sheets for 3M products:

- By fax, call 1-800-364-0768 in the US and Canada or 1-650-556-8417 for all other locations.
- Electronically, visit us at <http://www.3M.com/MSDS>.
- By mail, or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

When using any equipment, always follow the manufacturers' instructions for safe operation.

Attention:

Authorized Graphics Manufacturers

Visit our password-protected website for exclusive product information, profiles and services. Certain restrictions apply.

1. Go to www.scotchprint.com.
2. Select a country.
3. Click *Login* on upper left side of screen.
4. Click Register.
5. Enter authorization code: **CGD_SGN**.
6. Complete the information and submit.
An e-mail will be sent when your authorization is completed.

3M Related Literature

The information in 3M bulletins is subject to change. Current bulletins, as well as a list of all bulletins updated within the last three months, are available at www.scotchprint.com or through our Fax-on-Demand system. Any warranty, if offered, is based on information in the bulletin that was current at the time you purchased the 3M products. The following bulletins provide the information and processes you need to properly make the graphics described in this bulletin.

Fax-on-Demand phone numbers:

United States or Canada: 1-800-364-0768

International: 1-651-732-6506

Subject	Bulletin No.	FOD No.
Instruction Bulletins		
Design of graphics	2.1	5501
Scoring and cutting	4.1	6501
Using 3M application tapes; premasking and prespacing for films	4.3	6503
Application, substrate selection, preparation and substrate-specific application techniques	5.1	7001
Application, wet method for translucent screen printed, thermal mass transfer and cut graphics	5.7	7007
Thermoforming	5.16	7016
Storage, handling, maintenance, removal	6.5	8505
Warranties		
3M™ MCS™ Warranty		9503

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VIVAK HT is a registered trademark of Sheffield Plastics.



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Fax-on-Demand 1-800-364-0768 US/Canada or 1-651-732-6506 International
Fax-on-Demand document: 3038
www.scotchprint.com

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