



# Scotchcal™ Graphic Film with Comply™ Adhesive IJ40C-10R and IJ40C-20R

For Piezo Inkjet and Screen Printing with Solvent and UV Inks

## Product Description

Film IJ40C-10R (gloss) and IJ40C-20R (matte) are 3-mil vinyl films with a removable, pressure-sensitive adhesive and Comply adhesive for easier, bubble-free application. Available in a gloss or matte finish, use it where a good, versatile film is needed for general promotional signage for outdoors and indoor applications, including floor or carpet graphics. It is designed for piezo inkjet or screen printing with solvent or UV inks.

## About Floor Graphics and Carpet Graphics

Floor and carpet graphics are for use on indoor floors only. They require the use of 3M™ Scotchcal™ High Gloss Overlaminates 3648, which provides a slip-resistant surface.

When applying graphics to carpet, it is solely the user's responsibility to be aware of and comply with the American with Disabilities Act standard, which includes but is not limited to:

4.5.3\* Carpet. If carpet or carpet tile is used on a ground or floor surface, then it shall be securely attached; have a firm cushion, pad, or backing, or no cushion or pad; and have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. The maximum pile thickness shall be 1/2 in (13 mm). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge.



## CAUTION

Loose or damaged floor or carpet graphics may cause a person to slip or trip and fall.

To reduce the risk of slipping or tripping on sidewalk signs:

- Use only 3M™ Scotchcal™ Matte Overlaminates 3648, which has a slip-resistant surface.
- Properly apply only hard indoor floors or carpets with a pile as described in ADA standard 4.5.3
- Immediately remove or replace loose or damaged graphics. Do not attempt to repair or re-adhere.

Failure to heed this Caution may result in personal injury.

## Wall Graphics

Two-mil cast films are typically the best choice for indoor smooth surface wall graphics, although four-mil films may be suitable for shorter term applications. In either case, the user is responsible for determining the product's suitability, including adhesion and, if required, removal characteristics. Due to the wide variability of smooth indoor walls, neither finished graphics nor removal is warranted, even for removable or changeable films. Instruction Bulletin 5.37 provides comprehensive information for the most successful wall graphics film selection and application.

## Characteristics

All values are typical for unprocessed film and are not for use in specifications. Contact your 3M representative for a custom specification.

### Physical Characteristics

Characteristic	Value
Material	Vinyl
Color	White opaque
Gloss	Matte: IJ40C-20R Gloss: IJ40C-10R
Film thickness	<b>Without adhesive:</b> 3 mil (0.081 mm) <b>With adhesive:</b> 4.0 mil (0.102 mm)
Adhesive type	Pressure sensitive with air release channels
Adhesive color	Gray
Liner	Polycoated paper

### Application Characteristics

Finished graphic application recommendations	<b>Most Graphics</b> <b>Surface type:</b> Smooth, flat and simple curved surfaces <b>Substrate type:</b> Metal, rigid plastic and painted substrates	<b>Indoor Floor Graphics Only</b> <b>Surface type:</b> Smooth, flat <b>Substrate type:</b> Most indoor floors including, tile, sealed concrete, Terrazzo, ceramic and finished wood Low pile, secured floor carpet
	<b>Application temperature:</b> <i>air and substrate</i> 40° to 100°F (4° to 38°C)	
Application method	Dry	
Finished graphic exposure temperature	-30° to +200°F (-34° to +93°C)	
Graphic removal	Removable, may require heat	

## Warranty and Durability

### 3M Basic Product Warranty

This product has been tested and is believed to be a good product when used as recommended in this bulletin. The film is covered by the 3M Basic Product Warranty and is guaranteed to be free of physical and manufacturing defects. There is no warranty for printability, visual appearance, fitness for use or durability. See the 3M Graphics Market Center Warranty Brochure for the complete warranty and remedy details.

## Expected Performance Life

**Most General Signage:** 7 years in a vertical exposure with typical usage may be expected

**Indoor Floor Graphics:** 3 years\*

Indoor Carpet Graphics: 3 months\*

\*When protected by 3M overlamine 3648, in a horizontal indoor exposure with typical usage may be expected.

3M Product and Instruction Bulletins provide practical recommendations for using this product in a way that maximizes performance, but using other 3M products or procedures with this film does not change the terms of the warranty.

## 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 or implied warranty arising out of a course of dealing, custom or usage of trade: all 3M products are 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. 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.**

See the *3M Graphics Market Center Warranty Brochure* at [3Mgraphics.com](http://3Mgraphics.com), which gives the terms, additional limitations of the warranty, if any, and limitations of liability.

## Definitions

### Vertical Exposure



face of graphic

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

### Horizontal Exposure



face of graphic

The face of the graphic is  $\pm 5^\circ$  from horizontal.

## Fabrication

### All Printing Methods

This film has been optimized to perform well with a variety of piezo inkjet printers and inks as well as screen printing inks and processes. It is the graphic manufacturer's responsibility to determine the film's suitability for use with their printers and inks.

To maximize the film performance:

- Use graphic protection. 3M™ Scotchcal™ Luster Overlaminat 8509 has been specially designed for use with 3M's promotional graphic films.
- Thoroughly dry the ink and film or properly cure the ink before applying graphic protection, and before storing or installing a graphic.
- Always use the dry application method.

### Piezo Inkjet Printing Only

- Be aware that using sheeting film on a flat-bed piezo inkjet printer may produce printing defects.
- The typical maximum ink limit is 250%.
- If you are storing sheeted and stacked finished graphics for an extended period of time, leave an unprinted margin (about 1/4 inch) to allow for possible shrinkage before trimming the graphic.

### Additional Information for Floor Graphics

#### Applying an Overlaminat, Cutting, Application and Removal

See Instruction Bulletin 5.19 for specific information on these tasks.

After applying overlaminat 3648, soften any sharp corners by cutting radii on them. Use a hand cutter or cut with an electronic drum or flatbed plotter. This reduces the risk of corner lifting due to foot scuffing and equipment abrasion.

The film may be scrubbed, cleaned and waxed during routine maintenance of the floor.

## Shelf Life, Storage and Shipping

Activity	Recommendations
Shelf life	Total shelf life: 2 years Up to 2 years unprocessed, <i>OR</i> Up to 1 year processed and applied within 1 year of processing
Storage conditions	<ul style="list-style-type: none"> <li>• 90°F (32°C) maximum</li> <li>• Out of direct sunlight</li> <li>• Clean, dry area</li> <li>• Original container</li> </ul>
Shipping finished graphics	Flat: may be separated by paper Roll: printed side out on 5 inch (13 cm) diameter or larger core

## 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 go to [3M.com/MSDS](http://3M.com/MSDS), or 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.

## 3M Related Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

The information in 3M Product and Instruction Bulletins is subject to change. Current Bulletins are available at [3Mgraphics.com](http://3Mgraphics.com). The following applicable Bulletins provide information and processes you need to properly make the graphics described in this Bulletin. Additional Bulletins may be needed as indicated in the 3M Related Literature section of other 3M components you use.

Bulletin types: PB = Product Bulletin; PB-IB = Product & Instruction Bulletin; IB = Instruction Bulletin

Subject	Type	Bulletin No.
3M Graphic Protection Products <i>overview of all graphic protection products and specific information on most overlaminates</i>	PB	GP-1
Application, substrate selection, preparation and substrate-specific application techniques	IB	5.1
Application, general procedures for indoor and outdoor dry applications	IB	5.5
A Guide to Understanding and Applying Graphics to Common Indoor and Outdoor Wall Surfaces	IB	5.37
Floor Graphics: Make, Overlamine, Apply, Maintain, Remove	IB	5.19
Storage, handling, maintenance, removal	IB	6.5
3M Graphics Center Warranty Brochure	See <a href="http://www.3Mgraphics.com">www.3Mgraphics.com</a>	

*3M, Comply and Scotchcal are trademarks of 3M.*

## Bulletin Change Summary

The intended application of outdoor promotional graphics was readded after erroneously being omitted in the last version of this Bulletin.



**Commercial Graphics Division**  
3M Center, Building 220-12E-04  
PO Box 33220  
St. Paul, MN 55144-3220 USA  
General Info. 1-800-374-6772  
Technical Info. 1-800-328-3908  
Fax 1-651-736-4233

**3M Canada**  
P.O. Box 5757  
London, Ontario  
Canada N6A 4T1  
1-800-265-1840  
Fax 519-452-6245

**3M México, S.A. de C.V**  
Av. Santa Fe No. 55  
Col. Santa Fe, Del. Alvaro Obregón  
México, D.F. 01210  
52-55-52-70-04-00  
Fax 52-55-52-70-22-77

**3M Puerto Rico, Inc.**  
Puerto Rico Industrial Park  
350 Chardon Avenue, Suite 1100  
San Juan PR 00918  
787-620-3000  
Fax 787-620-3018

[www.3Mgraphics.com](http://www.3Mgraphics.com)

©3M 2009. All rights reserved.