



# Scotchcal™ Graphic Film

## IJ36-20

For Piezo Inkjet and Screen Printing with Solvent and UV Inks

### Product Description

Film IJ36-20 is a 3-mil matte vinyl film with a changeable, pressure-sensitive adhesive. Use it where a good quality film is needed for short-term king and queen board promotional graphics on transit vehicles or box trucks and point-of-purchase displays. It is designed for piezo inkjet or screen printing with solvent or UV inks.

### 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
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
Adhesive color	Gray
Liner	Polycoated paper

#### Application Characteristics

Finished graphic application recommendations	<b>Surface type:</b> Smooth, flat and simple curved surfaces <b>Substrate type:</b> Metal, rigid plastic and painted substrates <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	Changeable; may require heat when removing at cool or cold ambient temperatures

### 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

1 year in a vertical exposure may be expected with typical usage.

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 Graphics Market Center Warranty Brochure, 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.

## 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 Overlaminate 8509 is a cost-effective option 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.
- 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.

### Piezo Inkjet Printing Only

## 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, 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. 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
Storage, handling, maintenance, removal	IB	6.5
3M Graphics Center Warranty Brochure	go to 3Mgraphics.com, Warranties	

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## Bulletin Change Summary

Regarding fabrication of graphics, be aware that using sheeting film on a flat-bed piezo inkjet printer may produce printing defects.



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