



Changeable Window Graphic Film IJ61

For Inkjet Printing with UV, Solvent and Latex Inks

1. Product Description

Film IJ61 is a clear 3-mil vinyl film that gives designers and architects a product to implement creative ideas combined with functional purposes on vertical, transparent substrates such as building windows and interior dividers. This film accepts UV, solvent or latex inkjet inks brilliantly, while unprinted areas remain optically clear, all without an overlamine. Create eye-catching visual dimensions and opacity to second surface graphics by using white ink or laminating this film to 3M™ Scotchcal™ Graphic Film 50-10 (white). This short-term film is durable when you need it to be, yet removes easily and cleanly within 6 months of application.

A. These End Uses are Not Recommended

- Applications other than to vertical windows or dividers.
- Applications other than to flat or simple curved surfaces.

2. Characteristics

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

A. Physical Characteristics

Characteristic	Value
Material	Calendered vinyl
Color	Clear
Film thickness	Without adhesive: 3 mil (0.08 mm) With adhesive: 4 mil (0.10 mm)
Adhesive type	Pressure-sensitive
Adhesive color	Clear
Liner	Polyethylene-coated paper

B. Application Characteristics

Characteristic	Value
Finished graphic application recommendations	Surface type: Flat and simple curves Substrate type: Transparent substrates such as acrylic, glass and polycarbonate Application temperature: <i>air and substrate</i> 40° to 100°F (10° to 38°C)
Application method	Wet for best results, but may be dry applied
Finished graphic exposure temperature	-30° to +150°F (-25° to +65°C)
Graphic removal	Up to 6 months, from glass, acrylic, polycarbonate; may require heat

3. Definition of Vertical Exposure



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



4. Warranty and Durability

A. 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 Commercial Graphics Warranty Brochure](#) for the complete warranty and remedy details.

B. Expected Performance Life *Not a warranted durability*

1 year in a vertical orientation 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.

C. 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 Commercial Graphics Warranty Brochure* at 3Mgraphics.com, which gives the terms, additional limitations of the warranty, if any, and limitations of liability.

D. Loss of Gloss

Abrasion damage and loss of gloss are not covered by any 3M warranty. This is considered normal wear and tear.

E. Application to Glass

3M accepts no liability for glass breakage when using this film for window graphics. See [Instruction Bulletin 5.1](#) for details.

5. Fabrication

This film has been optimized to perform well with a variety of solvent inkjet and latex printers and inks. It is the graphic manufacturer's responsibility to determine the film's suitability for use with their printers and inks and intended applications.

To maximize the film performance:

- For inkjet printing, the typical maximum ink limit is 250%.
- Thoroughly dry the ink before storing or installing a graphic.
- Always build enough time (minimum of 48 hours) into your process to ensure complete drying of the graphic. Poorly dried film may become soft and stretchy, and the adhesive may become too aggressive. This can cause difficulty when applying an overlaminate, rolling or applying the graphic. See the ink's Instruction Bulletin for more details.
- If you are storing sheeted and stacked finished graphics for an extended period of time, we recommend leaving an unprinted margin (about 1/4 inch) to allow for possible shrinkage before trimming the graphic.

A. Cutting Recommendations

- Cold steel rule die
- Razor blade
- Sharp knife

B. Application Tapes

3M application tape may help with the application of a graphic. Graphics that have large amounts of exposed liner or are kiss cut use a prespacing application tape. If there is very little exposed liner, use a premasking application tape.

Use 3M™ Premasking Tape SCPM-3 to:

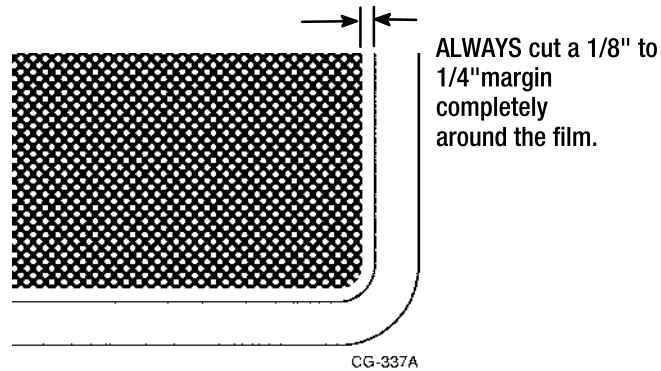
- Hold cut and weeded letters or graphics in registration after removing the film liner.
- Protect cut graphic parts from scratching or damage during application.



6. Application

- A wet application method is recommended. The film may exhibit some hazing but this should disappear within 24 to 48 hours. See 3M [Instruction Bulletin 5.7](#).
- A dry application method can be used if necessary.
- Always cut away a margin of 1/8 to 1/4 inch (3 to 6 mm) all around the graphic. See FIGURE 1.

FIGURE 1
Leave a Space All Around the Window



7. Maintenance and Cleaning

Use a cleaner designed for high-quality glass surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline).

8. Removal

- The graphics should remove without heat. However heat may be used to assist in removing the film. Use caution to avoid breaking the glass. Remove at your own risk.
- Substrates with coatings such as anti-reflection and scratch resistance may be damaged during removal.

9. Shelf Life, Storage and Shipping

Activity	Recommendations
Shelf life	Total shelf life: 6 months Up to 6 months unprocessed, <i>OR</i> up to 3 months processed and applied within 3 months of processing
Storage conditions	<ul style="list-style-type: none"> • 90°F (32°C) maximum • Out of direct sunlight • Clean, dry area • Original container • Bring film to room temperature before using.
Shipping finished graphics	Flat: may be separated by paper Roll: printed side out on 6 inch (15 cm) diameter or larger core

10. Health and Safety



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.



11. 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.
Application, substrate selection, preparation and substrate-specific application techniques	IB	5.1
Application, wet method for translucent, screen printed and cut graphics	IB	5.7
Application, general procedures for indoor and outdoor dry applications	IB	5.5
Storage, handling, maintenance, removal	IB	6.5
3M Commercial Graphics Warranty Brochure	go to www.3Mgraphics.com/Warranties	

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