



# Gerber InstaChange™ Reflective Removable Film manufactured by 3M

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## DESCRIPTION

Gerber InstaChange Reflective is a durable, reflective, wide-angle, removable, scratch-resistant sheeting custom formulated by 3M for use with the GERBER EDGE®, GERBER EDGE 2®, and GERBER EDGE FX™ thermal transfer printing systems, in conjunction with GerberColor™ Foils. For up to 18 months after application, the film’s unique adhesive allows the graphic to be removed from most surfaces without leaving an adhesive residue and without the aid of chemicals, accessories, or heat. It exhibits excellent retroreflectivity even when totally wet.

## INTENDED APPLICATIONS

Gerber InstaChange Reflective is ideally suited for interior and exterior emblems, logos, signs, point of purchase, and vehicular applications. This film has superior hiding power because of its gray-pigmented adhesive. It is designed for application to flat surfaces with and without rivets.

The user should determine the suitability of all substrates prior to actual application. This film is not recommended for use on corrugated or highly irregular surface. It is not recommended for flexible signface or flexible banner. It is also not intended for applications where petrochemical contact may occur (it can be used in non-spill areas such as doors on cars and trucks). If petrochemical exposure is anticipated, refer to the section below on protecting graphics.

Application of Gerber InstaChange to stainless steel substrates or over 3M™ Scotchlite™ Reflective Graphic Films or Gerber Reflective Vinyl 280 or 280i is not recommended.

## **PERFORMANCE LIFE (UNPRINTED)**

Gerber InstaChange Reflective has an expected performance life of up to 18 months when applied vertically. After 18 months, the adhesive of the film may become more difficult to remove. Ultimately, the surface appearance of the film may shift to a grayer color and its reflective quality may decline. In addition, the film may become more brittle and crack.

Performance statements are based upon field experience and exposure tests conducted throughout the United States. Substrate selection, exposure angle, environmental conditions, and maintenance of markings will affect actual performance. Continuous exposure in regions that experience maximum sunny days will result in decreased performance. This product is not recommended for horizontal applications.

## **SHELF LIFE AND STORAGE**

Apply film within one year of receipt. Printed graphics should also be applied within one year. Film and printed graphics (with or without premask) should be kept in a clean area free from excessive moisture and direct sunlight. Maintain temperature at less than 100°F (38°C).

Use a paper interleaf between layers of stacked or rolled printed materials. To roll the graphic, roll it film side out onto a 5-inch diameter core. Do not stack printed graphics face to face.

## **MAINTENANCE**

To clean printed graphics, use a mild, non-abrasive soap with a soft cloth or sponge. Avoid using alcohol-based cleansers or soaps containing grit or abrasives. Automated vehicle washing systems that use rotary cleaning brushes should also be avoided.

## **PRINTING**

GerberColor Transparent (GCT) and Process Pro CMYK (GCP) Series Foils are an ideal complement to this material as the transparent characteristic of these foils allow the film's retroreflectivity to "bounce back" through the printed graphic.

Other compatible GerberColor Series Foils include the GerberColor Spot (GCS), GerberColor Medal (GCM), and GerberColor Finishing (GCF) Series.

Recommended working environment is as follows:

- Operating temperature: 50°F to 95°F / 10°C to 35°C
- Recommended temperature for assured printing accuracy: 68°F to 78°F / 20°C to 26°C
- Operating humidity: 20% to 90% relative humidity, non-condensing (maximum range; actual range varies by material used)

## **APPLICATION TECHNIQUES**

Dry application methods should be used with Gerber InstaChange Reflective and panels can be overlapped or butted.

Gerber standard tack application tape is required for all printed applications.

A "snap tape test" should be used to determine the removal effects of InstaChange Reflective

on painted surfaces. Using a razor or other sharp instrument (cut a crosshatch pattern through the paint (Cut should be made in an inconspicuous area). The crosshatch pattern should be one inch wide with spacing of approximately 1/5 inch (5.08 mm) between cut lines. Using a squeegee, firmly apply a strip of aggressive pressure sensitive tape over the crosshatch pattern. (Use Scotch™ Tape #610 or equivalent.) Remove tape at a 180° angle using a firm, rapid pull.

This test should be performed whenever there is doubt concerning the integrity of paint to substrate adhesion (i.e. paint to wallboard). Any sign of lifting, peeling or bubbling of the paint indicated poor paint adhesion. This could result in damage to the substrate when graphic removal is attempted.

## **PROTECTING GRAPHICS**

Gerber Technology offers products that are designed to protect vinyl and printed graphics.

Gerber Guard™ manufactured by 3M is a durable, dimensionally stable, glossy vinyl overlamine. This film has a petrochemical-resistant construction and is intended to be used when markings may be exposed to petrochemical spillage and/or severe handling conditions.

Gerber UVGuard is a custom-formulated, 1-mil, clear, TEDLAR® polyvinyl fluoride (PVF) laminating film designed to further expand the resistance to weathering of graphics printed (or cut) on Gerber Series 220, 225, and 280i with the GERBER EDGE Series thermal transfer printing systems, in conjunction with GerberColor Series Foils, for up to five years.

Gerber UVGuard™ 9 manufactured by 3M is a 2-mil, glossy, clear, mildew-resistant, polyvinyl fluoride laminating film with a petrochemical-resistant adhesive system. It is designed to further expand the resistance to weathering of printed graphics up to nine years. Gerber UVGuard 9 has the highest protection from UV fade.

Gerber StrikeGuard™ is an 8.0-mil, clear, glossy overlamine film designed for a variety of applications. This heavy-duty overlamine film is ideal for the protection of graphics, up to two years, and is especially beneficial where printed graphics experience severe handling and forceful impact. Gerber StrikeGuard is not recommended in applications that require petrochemical protection or where additional UV or vandal resistance is desired.

Abrasion Guard™ SPF (Sign Protection Formula) is a clear, top-coat GerberColor Finishing Series (GCF) Foil designed for use with EDGE® Series thermal transfer printing systems, to protect graphics from moderate contact and exposure to harmful effects of UV rays. It has an expected performance life of up to five years (when printed by itself). When applied as a protective overprint on other GerberColor Foils, Abrasion Guard SPF will extend the life of the base color by up to 30%.

Matte Clear is a clear matte finish, top coat GerberColor Foil designed for use with EDGE® Series thermal transfer printing systems, to reduce glare and protect graphics from moderate contact or handling. It has an expected performance life of up to three years.

## **CUTTING**

Gerber InstaChange Reflective can be cut on any 15-inch EDGE-compatible sprocketed plotter or any Gerber FasTrack™ or ODYSSEY™ plotters for cut-only applications. A 30° SuperSharp blade is recommended. Plotters can be set to full speed.

The minimum recommended cutting height for text is 1 inch. This recommendation is based upon evaluations using upper case Helvetica Medium copy. Users should verify their own ideal

cut heights based upon their specific cutting equipment. The user should perform a test cut to determine the ideal tool force setting.

Excess film should be weeded within 24 hours of cutting to minimize the effect of adhesive flow.

## SUBSTRATE PREPARATION

Before applying your graphic, wash the surface of your substrate with warm water and detergent. Do not use soaps or other cleaners with lotions or creams as they will leave a residue. Thoroughly rinse the surface and allow it to dry completely.

Saturate a clean paper towel with a solvent-based cleaner and wipe the substrate surface. Be certain to follow all manufacturer safety guidelines when using any solvent. Dry the surface with a lint-free paper towel before the solvent evaporates.

If applying to glass, solvent wipe the surface with a 2 to 1 mixture of water and isopropyl alcohol. Glass temperatures can vary across the surface. These temperature variations can produce stresses that may cause the glass to break. Use caution when applying to glass.

Some polycarbonate substrates may weaken when certain vinyl films are applied to them. Because of this possibility, the user will need to determine if safety items such as helmets, safety shields, and some windshields are compatible with the film's adhesive.

Many paint systems (e.g. two-part urethane) and some polycarbonate and fiberglass substrates will outgas if they are not fully cured. Outgassing can cause permanent bubbling in most films; substrates should be tested for outgassing before final application.

## REMOVAL

The unique adhesive of the film can be removed from applied surfaces for up to 18 months after application and with little or no adhesive residue remaining. Ultimately, the surface appearance of the film may shift to a grayer color and its reflective quality may decline. In addition, the film may become more brittle and crack. Removal is best achieved at surface temperatures above 60°F (16°C). **Below a surface temperature of 60°F, some heat may be required to assist removal.**

**A “snap tape test” should be used to determine the removal effects of InstaChange on painted surfaces.** Using a razor or other sharp instrument cut a crosshatch pattern through the paint (Cut should be made in an inconspicuous area). The crosshatch pattern should be one inch wide with spacing of approximately 1/5 inch (5.08 mm) between cut lines. Using a squeegee, firmly apply a strip of aggressive pressure sensitive tape over the crosshatch pattern. (Use Scotch™ Tape #610 or equivalent.) Remove tape at 180° angle using a firm, rapid pull.

This test should be performed whenever there is doubt concerning the integrity of paint to substrate adhesion (i.e. paint to wallboard). Any sign of lifting, peeling or bubbling of the paint indicates poor paint adhesion. This could result in damage to the substrate when graphic removal is attempted.

Some additional surface exceptions are noted here:

- ◆ Aged painted and metal surfaces must be tested to insure removeability. Surface oxidation or chalking may result in adhesive residue upon removal.
- ◆ Paints not firmly bonded to the substrate or properly cured may be damaged when removing film.

- ◆ Removal from certain substrates or graphics may damage or lift off underlying graphics or otherwise damage the substrate.

## PHYSICAL PROPERTIES

Thickness w/ adhesive	7.0 to 7.5 mils with adhesive
Film Color	White
Adhesive	Removable
Adhesive Color	Pigmented Grey
Liner	Sealed layflat liner
Tensile Strength	13.5 lb/in/min (2.43 kg/cm/min)
Shrinkage	.032 in (.81 mm)
Application Temperature	28°F to 110°F (-2°C to 43°C)
Removable Temperature	28°F to 110°F (-2°C to 43°C)
Operating Temperature	-30°F to +200°F (-34°C to 93°C)
Removal (vertical installation)	18 months

## ADHESION

Substrate	Measurements after 24 hours
Fruehauf prepainted panels	2.0 lb/in (.35 kg/cm)

## CHEMICAL RESISTANCE (UNPRINTED)

InstaChange Reflective resists mild acids, mild alkalis and salts, and has excellent resistance to water.

## RETROREFLECTIVITY

The typical Coefficient of retroreflectivity is 85 when measured at a -4° entrance angle and a 0.2° observation angle.

## RELATED LITERATURE

Refer to Product Bulletins of relevant foils and materials for product-specific handling, production, and finishing information.

## CONTACT INFORMATION

For help with questions concerning Gerber products, please call your distributor or Gerber Customer Service at 1-800-222-7446 or (860) 644-1551. Visit us on the Internet at [www.gspinc.com](http://www.gspinc.com) to learn more about our many other foils, materials and equipment.

When sold by Gerber, use only the corresponding Gerber Product Bulletin to determine product details, including but not limited to appropriate uses, warranty and processing.

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