



# GerberVision™ II Perforated Window Film manufactured by 3M

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## DESCRIPTION

GerberVision II is an adhesive-backed, perforated vinyl film 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.

GerberVision II has a high-gloss white front for image reception, a black backing and a clear adhesive. Because the film has a 50% perforation pattern, the black backing side can be seen through.

The adhesive allows removal of GerberVision II graphics up to one year using heat after application, without leaving an adhesive residue on most substrates.

## INTENDED APPLICATIONS

GerberVision II window film can be used on flat and simple-curved, transparent substrates such as vehicle and store windows. The film can be applied to a variety of substrates including acrylic, glass and polycarbonates. The user should determine the suitability of all substrates prior to actual application.

Optimal visual results will be achieved if the light source on the printed side is stronger than that of the adhesive side. The film is not intended for backlit applications or applications where contact with petrochemical spillage may occur.

GerberVision II is not recommended for application to substrates that require a clear view when wet (i.e. automobile front windshields). Water can fill the perforations and obstruct vision through the window. Some states have regulations requiring minimum light passage that may

limit the use of this product on vehicle windows. The user is solely responsible for complying with all applicable standards.

## **PERFORMANCE LIFE (UNPRINTED)**

GerberVision II has a durability of up to one year when applied vertically.

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 86°F (30°C).

Use a paper interleaf between printed materials that are rolled or stacked. Do not store printed graphics face to face.

To prevent wrinkling, graphics should be shipped and stored flat or wound on a 6-inch diameter core, graphic side out.

## **PRINTING**

Select GerberVision settings to optimize the print performance with EDGE® Series thermal transfer printing systems.

GerberColor Spot (GCS), GerberColor Process Pro™ CMYK (GCP), GerberColor Medal (GCM), and GerberColor Transparent (GCT) Series Foils can be used to print onto GerberVision II.

The film surface perforations are .050 in to .055 in (1.27 mm to 1.40 mm) and fine detail may be lost during printing. Images printed on GerberVision II may appear lighter than when printed on a film that is not perforated.

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)

## **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, extremely durable polyvinyl fluoride (PVF) surface-protected laminating film designed to further expand the resistance to weathering of printed graphics 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 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%.

## **CUTTING**

GerberVision II can be cut on any 15-inch EDGE-compatible sprocketed plotter. A 30° SuperSharp blade is recommended. If you are using a high-speed plotter (HS 15™, HS15Plus™) maximum recommended speed is 70%. Any other plotter can be set to full speed.

## **SUBSTRATE PREPARATION**

Before applying your graphic, be sure to bring the film to print room temperature prior to using.

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 completely dry.

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 which 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 their vinyl's adhesive.

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

## **APPLICATION TECHNIQUES**

Dry application methods should be used with GerberVision II and panels should be butted.

Trim the graphic so that 1/8 in to 1/4 in (.005 mm to .01 mm) of the window surface is visible. GerberVision II should not touch the window molding.

Gerber standard tack application tape is required for all EDGE-printed graphics.

Remove GerberVision II by heating one corner with a heat gun or heat lamp. (Be certain to follow manufacturer safety procedures when using a heat source.) Slide a razor or knife edge

under the corner to loosen the graphic. Care should be taken not to scratch the window surface. Pull the film at a 180° angle over itself and heat the removal point.

Surface temperature should be 70°F to 100°F (21°C to 38°C) if removing GerberVision II from Lucite SAR or LEXAN®. If glass window panels are above 60°F (10°C), additional heat will not be required for removal.

## 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.

## PHYSICAL PROPERTIES

Thickness	5-6 mil with adhesive
Film Color	White punched
Adhesive	Pressure sensitive, removable
Adhesive Color	Clear
Liner	Polyethylene-coated paper
Tensile Strength	4.2 lb/in (.74 kg/cm min)
Elongation	50% minute
Dimensional Stability	.0625 in (1.59 mm)
Application Temp (air and surface)	40°F to 100°F (4°C to 38°C)
Removal Temp	See Application Techniques
Operating Temp	-30°F to 150°F (-25°C to 65°C)
*Flammability Rating	ASTME E84 reports: 8170

\*Many states/communities require interior applications to meet an ASTM-84 STM for surface burning characteristics of building materials specifications.

## 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.gerbertechnology.com/signage](http://www.gerbertechnology.com/signage) 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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<b>Category:</b> EDGE READY™	<b>FastFact #:</b> 5543	<b>Supplied by:</b> Aftermarkets	<b>Last Modified:</b> 09/13/17
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