



# Gerber StrikeGuard™ Overlaminates

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## DESCRIPTION

Gerber StrikeGuard is an 8.0 mil, clear glossy overlaminates film designed for a variety of applications. This heavy-duty overlaminates film is ideal for the protection of graphics - for 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.

For protection from petrochemical exposure, refer to the Gerber Guard™ Product Bulletin or to the Gerber UVGuard™ Product Bulletin for information on protecting graphics from ultraviolet light or from graffiti.

## INTENDED APPLICATIONS

Gerber StrikeGuard is ideally suited as a protective film for printed graphics applied to helmets, hard hats, vehicles, motocross, snowmobiles, and recreational accessories. Gerber StrikeGuard is compatible with specific Gerber EDGE READY™ materials including QUANTUM 2000, QUANTUM 4000, Gerber ImageCal™ 'P' and ImageCal 'R' and all GerberColor™ foils recommended for printing on these materials. Due to the total thickness of the StrikeGuard/base film construction, applications to compound curves, corrugations or applications over rivets are not recommended. Consult individual base material product bulletin for more information on final surface selection.

### Special Application Note:

Gerber StrikeGuard and QUANTUM 2000 is part of a total system designed for creating EDGE-printed decals and graphics for helmets and hard hats made of polycarbonate. The adhesive systems of both Gerber StrikeGuard and Gerber QUANTUM 2000 have been evaluated on polycarbonate and have shown not to affect or degrade the strength of the polycarbonate. However, because the materials used for the manufacturing of such helmets can vary by manufacturer, the user must determine the suitability of the QUANTUM 2000 and StrikeGuard products prior to their actual use.

The StrikeGuard/QUANTUM 2000 construction will achieve an excellent bond to polycarbonate. However, easy removal can be achieved with this construction within 12-months of the initial application with minimal adhesive residue remaining on the substrate.

*\* Testing was conducted on LEXAN® brand polycarbonate from GE Plastics.*

## **PERFORMANCE LIFE (GERBER STRIKEGUARD ONLY)**

Gerber StrikeGuard has an exterior expected performance life of two years when applied vertically.

Performance statements are based upon representative experience obtained from testing throughout the United States. Actual performance will be affected by substrate preparation, maintenance of the markings, and exposure conditions. 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 overlaminate within one year of receipt. Gerber StrikeGuard should be stored in a clean area free from excessive moisture. Maintain temperature at less than 70° F (21°C).

## **MAINTENANCE**

Clean the surface of Gerber StrikeGuard with a mild, non-abrasive soap with a soft cloth or sponge. Avoid soaps containing grit or abrasives.

## **CUTTING**

A graphic that has been laminated with Gerber StrikeGuard can be cut using any 15" GRAPHIX ADVANTAGE® or OMEGA™ compatible plotter. GS-15™ plotters or similar plotters can be set to full speed. HS-15™ and HS-15plus™ and enVision 375 plotters should be set to a cut speed of 50% or less depending on the severity of the cut line.

The user should perform a test cut to determine the ideal tool force setting.

## **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 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. Take special note of the solvent's safety guidelines if the intended application substrate is a helmet or protective safety device. 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. However, the unique adhesive systems and vinyl construction of both QUANTUM 2000 and Gerber StrikeGuard have been tested under lab conditions for use with polycarbonate and no visual evidence of material degradation or any detrimental effects were detected. As with any application it is recommended that each user determine the suitability of the film's use - especially if graphics are to be applied to safety items such as helmets, safety shields, and windshield applications.

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

To ensure a proper adhesion, application of graphics produced with StrikeGuard overlamine must be done dry (without the aid of application fluids).

The following application guidelines are suggested for using Gerber with QUANTUM 2000. Note: We strongly recommend that all corners be radiused to make cutting and weeding easier.

Print graphics onto QUANTUM 2000.

Remove printed graphics from the Gerber EDGE® or EDGE® 2.

Using a cold roll laminator, or by hand, apply Gerber StrikeGuard over the printed graphic.

Wait at least 15 minutes for overlamine to set to face film. (When run through a plotter, overlaminates may sometimes separate from the base film if the adhesive has not had a chance to set up.)

Load laminated graphic into the plotter and line up the cut registration mark using the registration eyepiece.

You will need to set your tool force much higher than what you usually would for the base film. For example, if you normally cut QUANTUM 2000 film at 4.5 oz. on the Gerber enVision™ 375, use 14.5 oz. (The user should perform a test cut to determine the ideal tool force setting). The ideal weight will cut through both the StrikeGuard (overlamine) and the base (printed) film without cutting through the base film liner.

Cut and weed the graphic (as with any pressure-sensitive film) and apply to the final surface.

***Note: Due to the thickness of the overlaminated decal, care should be taken to design the cut lines of a decal intended for application to moderately curved (or convex shapes such as helmets) to accommodate the curvature of the substrate and to achieve a consistent and proper level of adhesion.***

## PHYSICAL PROPERTIES

Construction	PVC
Thickness	8.0 mil without adhesive
Film Color	Clear
Adhesive	PSA
Adhesive Color	Clear
Liner	78# White Kraft Paper
Dimensional Stability	.015" (.4mm)
Application Temperature	50°F (10°C)
Removal Temperature	n/a
Operating Temperature	-40°F to +185°F (-40°C to +85°C)

## CHEMICAL RESISTANCE

Chemical agent	Exposure time	Results
Water at 90°F (32°C)	24 hours	No effect
50/50 ethylene glycol/water	24 hours	No effect
Reference fuel	1 hour	No effect
SAE 20 motor oil	24 hours	No effect
JP-4 Fuel	1 hour	No effect
10% Hydrochloric acid	10 minutes	No effect
10% Ammonium Hydroxide	10 minutes	No effect
VM&P Naphtha	10 minutes	No effect
Mineral Spirits	10 minutes	No effect
Methyl Alcohol	10 minutes	No effect

## RELATED LITERATURE

Gerber QUANTUM 2000, QUANTUM 4000, ImageCal 'P', ImageCal 'R', GerberColor Spot (GCS) Series, GerberColor Process (GCP) Series, GerberColor Medal (GCM) Series, and GerberColor Transparent (GCT) Series Product Bulletins.

For help with questions concerning Gerber products, please call your distributor or Gerber Customer Service at 1-800-222-7446 or (860) 643-1515. Additional information on this and all Gerber materials may also be referenced at our web site [www.gspinc.com](http://www.gspinc.com).

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