

**TITLE:** Gerber PermaGrip™ Film

Gerber FastFact #: 5545

Supplied by: Aftermarkets

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Summary: Gerber PermaGrip™ Film Product Bulletin

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## **DESCRIPTION**

Gerber PermaGrip is a durable, permanent cast vinyl film that has been custom formulated by 3M™ for use with Gerber Digital Color Printing Systems and GerberColor™ foils. It is dimensionally stable and has an extremely aggressive pigmented adhesive system that provides superior hiding power when applied over colored surfaces. Gerber PermaGrip is edge-stripped to eliminate build up of adhesive residue on sprocketed equipment.

## **INTENDED APPLICATIONS**

Gerber PermaGrip is ideally suited for a wide variety of commercial, industrial and safety applications. It can be used to create interior and exterior labels, emblems, logos and signs on many surfaces including, flat, moderately compound curved and moderately-rough surfaces and some low surface energy materials. The user should determine the suitability of all substrates prior to actual application. This film is not recommended for use on corrugated, riveted or highly irregular surfaces. It is not recommended for flexible signface or flexible banner material. It is also not intended for applications where petrochemical contact may occur. If petrochemical exposure is anticipated, refer to the section below on protecting graphics.

## **APPLICATION TECHNIQUES**

Both wet and dry application methods can be used with Gerber PermaGrip and panels should be overlapped.

Care should be used during graphic application because the aggressive adhesive system is not positionable and becomes more aggressive as the surface temperature of the final substrate increases. Gerber standard tack application tape is required for all graphics produced with Gerber Digital Color Printing Systems.

## **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. 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.

**PERFORMANCE LIFE (UNPRINTED)**

Gerber PermaGrip has the following performance life

	Vertical Exposure		Non-Vertical Exposure	
	Face of graphic is less than 10° from vertical		Face of graphic is more than 10° from vertical	
	US	Desert Southwest	US	Desert Southwest
<b>Unprinted Film</b>	7	4	4	2

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. Unprinted, this product has a four year .

**PRINTING**

GerberColor Spot (GCS) Series, GerberColor Process (GCP) Series, GerberColor Process SUPER CMYK™, GerberColor Medal (GCM) Series, GerberColor Transparent (GCT) Series, ColorSet™ Spot (CSS) Series and ColorSet Process (CSP) Series Foils can be used to print onto PermaGrip.

**CUTTING**

Gerber PermaGrip can be cut on any 15" GRAPHIX ADVANTAGE® or OMEGA™ compatible plotter. Plotters can be set to full speed. The user should perform a test cut to determine the ideal tool force setting.

**PROTECTING GRAPHICS**

Gerber Scientific Products, Inc. offers two products that are designed to protect printed graphics on Gerber PermaGrip.

Gerber Guard™ 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.

Abrasion Guard™ is a clear, top-coat GerberColor Foil designed to protect graphics from moderate contact or handling.

**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. 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.

## PRODUCT DESCRIPTION

Property	Description
Film Color	White
Adhesive Type	Gray, Pressure Sensitive
Liner	78 Pound White Paper
Application Surfaces	Flat or moderate compound curves, with and without rivets
Minimum Application Temperature	40°F (4°C)

## PHYSICAL CHARACTERISTICS

Property	English Units	Metric Units
Thickness (Film + Adhesive)	.003-.004 in.	.08-.10 mm
Tensile Strength	5 lbs/in. at 73°F	.9kg/cm at 23°C
Applied Shrinkage	.047 in.	1.2 mm
Service Temperature Range	-65° to 225°F	-54° to 107°C

## ADHESION (24 hours after application)

Substrate	English Units	Metric Units
ABS	5	.9
Acrylic Enamel	5	.9
Anodized Aluminum	6	1.1
Etched Aluminum	5	.9
Chrome	5	.9
Fiberglass	5	.9

## CHEMICAL RESISTANCE (UNPRINTED)

- Resists mild acids, alkalis, and salts.
- Excellent water resistance.

## RELATED LITERATURE

GerberColor Spot (GCS) Series, GerberColor Process (GCP) SUPER CMYK Series, GerberColor Medal (GCM) Series, GerberColor Transparent (GCT) Series, and Gerber Guard, and Abrasion Guard (GerberColor Finishing GCF) 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.

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