



3M™ Controltac™ Film with microComply™ Adhesive Series 180mC, sold by Gerber

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DESCRIPTION

3M™ Controltac™ Film with microComply™ Adhesive Series 180mC, sold by Gerber is the latest film technology. The improved air release channels allow air escape through micro-replicated channels under the film’s surface without leaving any noticeable channel marks on the film surface itself. The result is a smooth, glossy graphic film that is faster and easier to apply than conventional films.

This 2-mil repositionable film is EDGE READY™.

INTENDED APPLICATIONS

Controltac Film 180mC is ideal for both small and large graphics over corrugated and riveted surfaces such as tractor trailers, buses, and other fleet graphic applications. This film can be used on a wide variety of substrates including ABS resins, aluminum, chrome, glass, fiberglass reinforced plastics, painted surfaces and flat or simple curved surfaces, with and without rivets. This film has a grey-pigmented, pressure-sensitive adhesive, which allows for optimum color opacity.

This film is not recommended for use on stainless steel, non-3M films, or substrates that do not have a clean, smooth surface or have poor paint-to-substrate adhesion. 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.

PERFORMANCE LIFE (UNPRINTED)

When applied vertically, Controltac Film 180mC has an expected performance life of up to ten years.

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.

SHELF LIFE AND STORAGE

Apply Controltac Film 180mC 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.

PRINTING

GerberColor Spot (GCS), Process Pro™ CMYK (GCP), Medal (GCM), and Transparent (GCT) Series Foils can be used to print onto Controltac Film 180mC. (For information on the performance lives of GerberColor™ Foils, refer to the appropriate GerberColor Product Bulletin.)

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, TEDLAR® polyvinyl fluoride (PVF) 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 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%.

CUTTING

Controltac Film 180mC can be cut on any 15-inch Gerber plotter. A 30° SuperSharp blade is recommended. Though plotters can be set to full speed for simple geometric shapes and panels over 6 inches high, slowing the speed of the plotter is found to optimize cut performance. User is advised to test cut before running entire job. This product is not recommended for complex contour cutting.

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, 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.

Controltac Film 180mC can be removed with heat or chemicals within 7 years. Be certain to follow all manufacturer safety guidelines when using heating devices or chemical solvents.

APPLICATION TECHNIQUES

Dry application should be used with Controltac Film 180mC. Panels can be overlapped. Graphics should be allowed to cure for 15 minutes prior to application.

IMPORTANT – PLEASE READ

Gerber standard tack application tape is required for all graphics produced with Gerber Digital Color Printing Systems. Due to the unique adhesive construction of Controltac Film 180mC, application tape can sometimes curl if exposed to the liner for prolonged periods of time. Therefore, to minimize contact between application tape and the liner, we suggest any of the following options for graphic application:

OPTION #1: Apply application tape immediately prior to installing graphic

OPTION #2: Trim excess application tape from graphic to reduce exposure to liner.

OPTION #3: If transporting graphic, secure the applied application tape to the back of the material liner with masking tape.

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	2 mil
Adhesive	Pressure activated, repositionable with air release channels
Adhesive Color	Grey
Liner	Polyethylene-coated paper
Tensile Strength	5 lb/in minimum at 73°F (0.9 kg/cm minimum at 23°C)
Dimensional Stability	.0015 in (0.4 mm)
Application Temperatures: Flat Surfaces (with and without rivets) Corrugated Surfaces	50°F to 100°F (10°C to 38°C) 50°F to 100°F (10°C to 38°C)
Removal Temperature	50°F (10°C) minimum (air and substrate)
Operating Temperature	-65°F to 225° F (-54°C to 107°C)

CHEMICAL RESISTANCE

Controlltac Film 180mC is resistant to mild acids, mild alkalis and salts. Film has excellent water resistance.

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 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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