Gerber Series 210 Dusted Crystal and Frosted Crystal Films manufactured by 3M

DESCRIPTION

Gerber Series 210 Dusted Crystal and Frosted Crystal films resemble acid-etched glass and sand-blasted glass, respectively. These graphic films are custom formulated for use in cut graphic applications, are dimensionally stable, and have been designed to withstand severe weather and handling conditions. They also have a synthetic, transparent liner which prevents moisture absorption, lies flat, and resist static buildup. Series 210 Dusted Crystal and Frosted Crystal have good cutting and weeding characteristics, eliminate glare due to low gloss, have permanent adhesive, and have an expected 3-year exterior durability and an interior durability of up to 15 years.

INTENDED APPLICATIONS

Series 210 Dusted Crystal and Frosted Crystal films are ideally suited for pre-spaced, electronically-cut graphics and decorative translucent graphics on non-vehicular glass and acrylic substrates. They can be applied to flat, non-flexible surfaces. They are not intended or warranted for printing or vehicle applications. The user should determine the suitability of all substrates prior to actual application.

Series 210 Dusted Crystal and Frosted Crystal films have a clear adhesive and are therefore suitable for use as cut graphics in window/transparent substrate applications. They can also be used on opaque substrates.

This film is not recommended for or warranted for use on corrugated or highly irregular surfaces or for use in fabricating automotive OEM's. It is also not intended or warranted for applications where petrochemical contact may occur. If petrochemical exposure is anticipated, refer to the section below on "Protecting Graphics".

PERFORMANCE LIFE

When applied vertically, Dusted Crystal and Frosted Crystal films have an expected exterior performance life of up to 3 years, an expected interior performance of up to 15 years (no direct UV light), and up to 7 years performance when mounted to the inside of an outside window.

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

Unprocessed film has a shelf life of up to two years after receipt. Processed film has a shelf life of one year; therefore, apply film within one year of receipt. Film should be kept in a clean area free from excessive moisture and direct sunlight. Maintain temperature at less than 100°F (38°C).

Leave rolls of film in the original shipping carton, or suspend rolls horizontally. Store cut sheets flat. Ship finished graphics lying flat or in a roll. To roll the graphic, wrap it sheeting–side-out on a 6-inch (15-cm) diameter core, minimum. These methods help prevent the film and premasking from wrinkling or popping off the liner. Never 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.

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 overlaminate. 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 overlaminate film designed for a variety of applications. This heavy-duty overlaminate 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

Series 210 Dusted Crystal and Frosted Crystal films can be cut on any Gerber 15-inch sprocketed plotter, or any Gerber FasTrack™ or ODYSSEY™ plotter. A 30° SuperSharp blade is recommended. Plotters can be set to full speed.

The minimum recommended cutting height for text is .375 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 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 films are applied to them. Because of this possibility, the user will need to determine if the desired target substrate is compatible with the 210 Series Dusted Crystal and/or Frosted Crystal film's adhesive.

Many paint systems (e.g. two-part urethane) and some plastic 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. Plastics should be dried at 150ºF (66ºC) for 24 hours prior to application to help avoid outgassing.

APPLICATION TECHNIQUES

Dry application methods should be used with Series 210 Dusted Crystal and Frosted Crystal and panels should be overlapped. Gerber standard tack application tape is required to be used as the transfer carrier.

PHYSICAL PROPERTIES

Thickness	3 to 5 mils with adhesive
Film Color	Dusted Crystal or Frosted Crystal
Adhesive	PSA
Adhesive Color	Clear
Liner	Clear polyester

Tensile Strength (minimum)	Dusted = 5 lb/in (0.9 kg/cm) Frosted = 3.5 lb/in (0.6 kg/cm)
Applied Shrinkage	.015 in (0.4 mm)
Minimum Application Temp.	40°F (4°C)

CHEMICAL RESISTANCE

Resists mild acids, mild alkalis, and salts. 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.

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