

Warranty Bulletin

General Formulations graphic solutions are backed by over 65 years of proven durability and performance. Each product is tested to meet the most rigorous demands in the sign and graphics industry.

Great! What does that mean for you?

Peace of mind and confidence that at the end of the day, GF produces quality made, tested and certified materials that perform reliably on a consistent basis, backed by an experienced, technical, research and development team at GF with a global network of technical experts, like you, successfully using GF graphic solutions.

GF Warranty

General Formulations ("GF") warrants to the original purchaser/user ("User") that its pressure-sensitive adhesive film (the "Products") shall be free from defects in materials and manufacture for the period of its specified effective performance life when used, properly stored, processed, installed, and removed according to GF published technical data sheets / technical information bulletins. For any properly and timely submitted warranty claim, if GF in its sole discretion determines the Products to be defective (as defined below) during its specified effective performance life, GF will issue a credit for the purchase price of the material through the authorized distributor from where the material was purchased. This warranty is subject to the terms and exclusions set forth below.

Conditions of Coverage

The warranty coverage is contingent upon the user reading and following all product technical sheets, instructions, and bulletins. Failure to follow all product technical sheets, instructions, and bulletins (including this bulletin) will result in warranty coverage being null and void, and fully waived. The User assumes responsibility in determining product suitability for intended use on any surface to which the Product will be applied.

MANUFACTURING, PRINTING, INK, AND CUTTING DEFECTS

What constitutes a GF product defect?

Only defects in the material or manufacturing of the Products are covered by this warranty. Our technical support team is available to help you with any questions about possible product defects. Questions they ask will determine if your issue is related to one of these common industry defects:

Manufacturing Defects - A failure of the Product to materially conform to the General Formulations written manufacturing specifications for the Product.

Printing and Ink Defects - Artifacts or misprints that occur when printing on specified General Formulations Product(s) due solely to a defect clearly identifiable in the Product(s) due to manufacturing or workmanship.

Cutting Defects - A failure of clean cutting and weeding characteristics when cut as recommended in the applicable General Formulations Product Data Sheet and Instructional Bulletins, due solely to a defect in the Product in manufacturing or workmanship.

PRODUCT TECHNICAL DATA SHEETS AND PRODUCT BULLETINS

Where can I find product technical data sheets and technical information bulletins?

To find the most up to date information on all GF products consult the website www.generalformulations.com. Product information such as the technical datasheets and technical information bulletins are routinely published on the GF website under Resources.

STORAGE

What is the best way to store GF materials?

There are many different storage, print and application environments within the industry. Science and product testing confirms, the best way to minimize product degradation and failure is to keep GF materials in a clean dry area at 70°F (21°C), away from direct sunlight and excessive moisture with no more than 50% relative humidity.

Additionally, to avoid potential print head strikes and other print issues, the following is recommended:

Rolls

Rolls should be stored horizontally suspended on the end caps within the shipping carton or suspended from a rod or pipe placed through the core.

PROCESSING

Will GF warrant the combination of a competitive product with GF products for a given application? For example, would using a GF digital film and a competitive laminate be a warranted combination?

GF only warrants utilizing the proper combination of GF Digital Print Media, GF Matching Laminate, correct product ICC Profile, and OEM Ink. Compatible GF product combinations may be found on the product technical sheets.

Any combination of competitive products or profiles with GF products is not a warranted combination. Contact technical support with questions regarding warranted combinations.

Does GF offer Product ICC Profiles?

Free GF product ICC profiles are available to download on the GF website. To locate, check the product section of the website and select Profiles for a wide selection of color profiles.

SUBSTRATE INSPECTION

Will GF products work on coated or waxed surfaces?

Prior to vinyl installation, review application surface for potential wax, coatings, damage, or surface issues. It is up to the graphic installer and their customer to determine the suitability and integrity of the substrate to which the vinyl graphic is being applied.

To avoid product failure, GF recommends applying graphics to OEM painted surfaces only that are less than 5 years old and free of all coatings, waxes and potential problems like chipping paint, scratches, and damage of any kind.

GF is not responsible for the integrity of the substrate to which the vinyl graphic is being applied and will not be liable for any direct or indirect damage caused during graphic installation, expected service life, or graphic removal.

Ex: When applying graphics to a vehicle with chipped or damaged paint, application failure and or paint removal may result because the bond between the film and the top surface of the substrate is strong but the bond between the vehicle and the paint is weak.

Cleaning

Application surface must be properly prepared/cleaned to avoid product failure. Please review all product technical sheets and information bulletins for proper cleaning methods.

GF is not responsible for product failures or substrate surface failure resulting from inappropriate surface preparation/cleaning or product testing. An individual failure shall not be construed as an indication of failure for the entire vinyl graphic package.

Processing after Printing

To avoid product failures, store printed graphics vertically and loosely wound to allow proper outgassing of inks. Tightly wound graphics will trap solvent gasses that may potentially migrate to the adhesive layer of the material. Solvent migration will result in poor adhesion properties during the application process.

For best results, prior to lamination, GF recommends allowing printed films to outgas between 48 - 72 hours at 70°F (21°C). Minimum recommended outgassing is 24 hours at 70°F (21°C).

Unless otherwise specified, cold lamination is recommended for GF laminating films. Although heat lamination is not necessary, heat lamination may be used between 105°F - 110°F (40°C - 43°C).

INSTALLATION

For best results, product application should be carried out by a qualified graphic application specialist. Inappropriate or incorrect application of the product or use of product types unsuited for the application may result in substrate surface damage or considerably reduced product performance and/or service life.

Avoid applying product in direct sunlight, the use of an adhesive promoter or tape primer is not recommended. Use of adhesive promoters will typically exhibit 50% or more adhesive transfer during the removal process.

Application Temperature

Refer to the product technical data sheet for appropriate application temperature. GF product(s) should never be applied below 40°F (8°C) unless otherwise stated in the individual product technical datasheet.

For best results, allow vehicle surface to acclimate to environment before applying product. Surface and ambient temperature should be between 65°F - 75°F (18°C - 24°C), with humidity levels resting between 50 - 70 %.

If using a heat gun for application, please consult the appropriate product technical sheet for application settings as this will vary from product to product.

During the first 24 hours after material application, significant temperature changes should be avoided. Significant temperature change may result in the material lifting in complex curved areas.

Application Tip:

- Colder temperatures will result in the material feeling more rigid and the adhesive less tacky.
- Warmer temperatures will result in the material feeling more pliable and adhesive more aggressive.
- Post heat GF Cast Digital and Laminating film combinations between 180°F - 210°F (82°C - 99°C).

Marine Application

Marine Application is an unwarranted application unless otherwise indicated in product technical sheet.

Glass Application

Prior to applying graphics, thoroughly clean glass with a mild detergent and water solution. Using Isopropyl Alcohol is recommended as the final step to remove any remaining contaminants.

The use of glass and other surface cleaners is not recommended as it could leave a residue that may cause poor adhesion between the graphic and the glass surface.

GF assumes no liability for breakage associated with application of its films on glass surfaces. For other tips to reduce the risk of poor adhesion properties and risk of glass breakage, please contact GF Technical Support for recommended application guidelines.

REMOVAL

For removable products, remove the graphic within the specified time frame listed on the product technical datasheet.

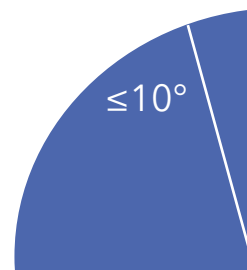
GF recommends a qualified graphic application specialist remove the product. Incorrect removal of the product may result in substrate surface damage.

EFFECTIVE PERFORMANCE LIFE

The length of the warranty is equal to the product's effective performance life as defined below based on application orientation exposure, geographical location, and whether the product is printed. Expected performance of our films in exterior vertical exposure applications, no more than 10° from a vertical orientation, located in Zone 1.

Horizontal Exposure

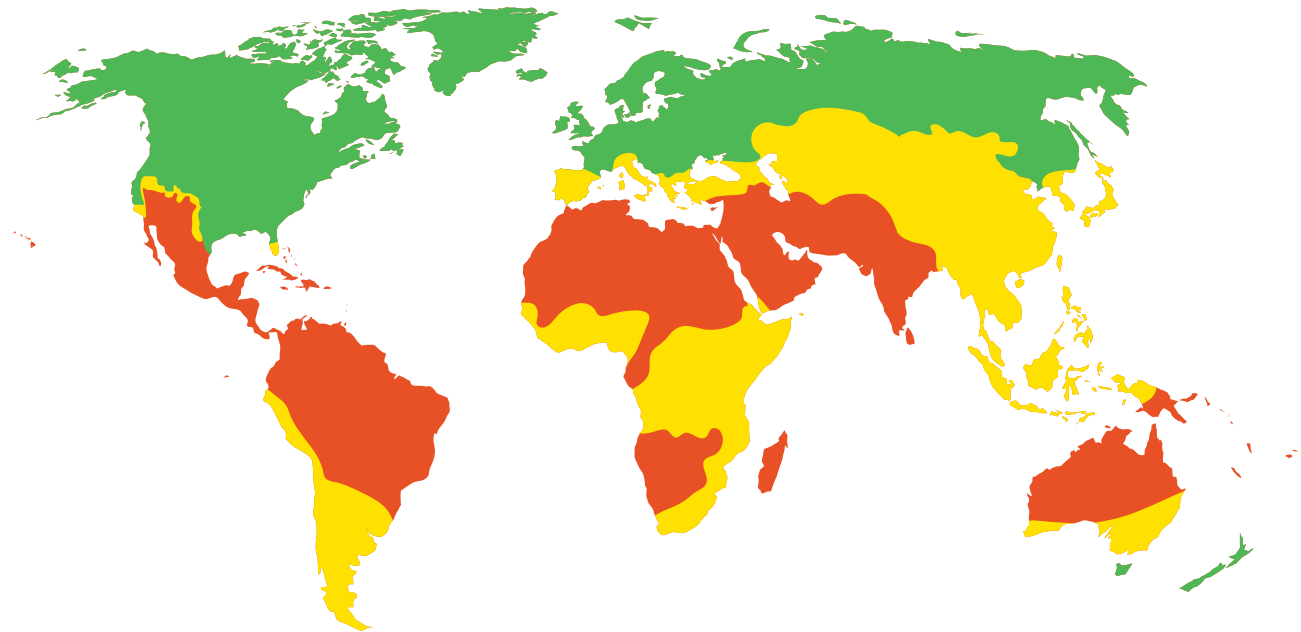
Exterior exposure applications with greater than 10° vertical orientation are not warranted.



Geographical Location

As set forth below, the geographical map is divided into three climate zones (Zone 1, Zone 2 and Zone 3), which determine the product's effective performance life and warranty length. Products used in regions identified in Zone 2 will have a reduction of the specified warranty length as compared to those used in Zone 1, and those used in Zone 3 regions will have a further 50% reduction in warranty length.

In the event the product is exposed to multiple zones the warranty will be determined based on the product's primary location. The effective performance life may be reduced by up to 50% in regions of extreme heat and UV exposure. Tropic, subtropics, elevations above 3000 ft, and areas with high pollution levels will also affect the performance life and cannot be expected to have the same durability as products in Zone 1.



To determine the correct zone for your region, please consult the chart and detailed maps below.

OUTDOOR EXPECTED PERFORMANCE LIFE
(Vertical Exposure with lamination)

Zone 1 Mild Climate		Zone 2 Humid/Warm Climate		Zone 3 Dry/Hot Climate	
Unprinted	Printed	Unprinted	Printed	Unprinted	Printed
Years		Years		Years	
8	7	5	5	4	3.5
7	6	4.5	4	3.5	3
6	5	4	3.25	3	2.5
5	4	3.25	2.5	2.5	2
4	3	2.5	2	2	1.5
3	2	2	1.25	1.5	1
2	1	1.5	0.75	1	0.5

**Zone 1
Mild Climate**

**Zone 2
Humid/Warm Climate**

**Zone 3
Dry/Hot Climate**

UNITED STATES						
Alabama	Alaska	Arkansas	California (Southwest)*	Colorado (Central)*	Arizona	California (Southeast)*
California (North)*	Colorado (North)*	Connecticut	Florida (South)*	Nevada (North)*	Colorado (South)*	Hawaii
Delaware	Florida (North)*	Georgia	New Mexico	Texas (West)*	Nevada (South)*	Texas (Southwest)*
Idaho	Illinois	Indiana	Utah (Central)*		Utah (South)*	
Iowa	Kansas	Kentucky				
Louisiana	Maine	Maryland				
Massachusetts	Michigan	Minnesota				
Mississippi	Missouri	Montana				
Nebraska	New Jersey	New Hampshire				
New York	North Carolina	North Dakota				
Ohio	Oklahoma	Oregon				
Pennsylvania	Rhode Island	South Carolina				
South Dakota	Tennessee	Texas (East)*				
Utah (North)*	Vermont	Washington				
West Virginia	Wisconsin	Wyoming				
AUSTRALIA						
Tasmania			Adelaide	Albany	Alice Springs	Broken Hill
			Brisbane*	Canberra	Broome	Cairns
			Coffs Harbour	Experance	Carnarvon	Ceduna
			Melbourne	Perth**	Cook	Darwin
			Sydney		Dubbo	Geraldton
					Kalgoorlie	Mackay
					Mount ISA	Neman
					Port Augusta	Port Hedland
					Telfer	Townsville

*For more specific climate zone information, please go to www.generalformulations.com.

** All areas 100km North of Perth and Brisbane, indicated by line dissecting map illustration of Australia. All locations mentioned in Zones 1 and 2 when installed above altitudes of 1000 meters are considered Zone 3.

**Zone 1
Mild Climate**
**Zone 2
Humid/Warm Climate**
**Zone 3
Dry/Hot Climate**

SOUTH AMERICA					
		Argentina	Chile	Bolivia	Brazil
		Uruguay		Columbia	Ecuador
				French Guiana	Guyana
				Paraguay	Surinam
				Venezuela	
OTHER COUNTRIES					
Canada	Europe (North)*	Africa (Central & South)*	Albania	Afghanistan	Africa (North & South)*
Russia		Andorra	Armenia	Asia*	Caribbean Countries & Territories
		Asia*	Azerbaijan	Central American Countries	India
		Brunei	Bulgaria	Mexico	Middle East
		Cambodia	China	Pakistan	Peru (North)*
		East Timor	Faulkland Islands		
		Georgia	Greece		
		Indonesia	Italy		
		Japan	Kazakhstan		
		Korea (North)	Korea (South)		
		Laos	Malaysia		
		Malta	Peru (South)		
		Phillipines	Portugal		
		Singapore	Spain		
		Syria	Taiwan		
		Thailand	Turkey		
		Turkmenistan	Uzbekistan		
		Vietnam			

*For more specific climate zone information, please go to www.generalformulations.com.

Environmental & Industrial Pollutants

Applications may experience reduced expected performance life when exposed to environmental and industrial pollutants and atmospheric conditions such as acid rain, acid dew, smog, or chemical discharge from factory emissions. Damage caused by any pollutants are not covered by our product warranty.

EXCLUSIONS AND LIMITATIONS

The Products shall not be considered defective, and this warranty will not apply, where the claimed defect is attributable to any cause other than the above-defined defects. This warranty shall not apply to:

- Damage caused by:
 - use, storage, processing, installation, cleaning, or removal of Products not in accordance with GF published technical data sheets, technical information, bulletins and written instructions;
 - animals, insects, rock chips, flying or falling objects, or by natural disasters, including but not limited to earthquakes, hailstorms, windstorms, hurricanes, and tornadoes;
 - any deliberate or negligent act, vandalism, act of terrorism or war, mechanical damage, or any other misuse or abuse;
 - defects or irregularities in the design, materials, or construction of the vehicle or substrate;
 - contact with pollutants, chemicals, or incompatible cleaning solvents;
- The performance of materials installed or used on the vehicle or substrate other than GF film;
- Marine applications.

THIS EXPRESS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE OR USE. The sole and exclusive remedy against GF in connection with the purchase, installation, use, and/or performance of the GF products is issuance of a credit for the purchase price of the material through the authorized distributor from where the material was purchased. GF shall not be liable for damage to the vehicle or substrate whether or not caused by a defect covered by this warranty. GF SHALL NOT BE LIABLE TO THE USER OR TO ANYONE ELSE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY, INDIRECT, OR PUNITIVE DAMAGES ARISING FROM USE OF THE PRODUCTS, ANY DEFECT, DELAY, NONDELIVERY, NONPERFORMANCE, RECALL OR OTHER BREACH BY GF, INCLUDING BUT NOT LIMITED TO PERSONAL INJURY, DEATH, PROPERTY DAMAGE, LOST PROFITS, OR OTHER ECONOMIC INJURY. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, the exclusion or limitation of incidental or consequential damages, or the limitations on time to bring certain actions, so such limitations contained herein do not apply to individual consumers in those states.

This warranty may not be modified, expanded, or waived in whole or in part. Any statements to the contrary are null and void unless made in a writing signed by the President of GF. This warranty is subject to and shall be interpreted according to Michigan law without regard to principles of conflicts of laws. No legal action shall be brought against GF unless filed within one year after the basis for such legal action becomes known, or with the exercise of reasonable diligence should have become known, to the User or its representatives. Any action not timely filed shall be deemed waived.

WARRANTY CLAIM PROCESS

Please contact the authorized distributor from which the Product was purchased. The authorized distributor will start the warranty claim process with GF. GF must be notified in writing of any claimed defect within 14 calendar days of its discovery and during the warranty period. Failure to give timely notice of a claimed defect shall constitute absolute waiver of any claim and GF shall have no liability, under this warranty or otherwise, with respect to such claimed defect.

To expedite the process please provide the following:

- Company name
- Company point of contact
- Product name
- Product lot numbers
- Printer used
- Ink used
- ICC profile used
- Samples of Product for laboratory testing
- Pictures of the application surface and perceived issue
- Detailed report of the processing components, conditions, and anything else that may be pertinent.
- Proof of purchase
- Geographical location of Product application

GF reserves the right to inspect, investigate and verify all reported claims. Failure to comply with the foregoing conditions constitutes a waiver of all rights under the General Warranty.

Samples must be submitted to GF to verify any claims against the stated material warranty. If a defect is determined by GF, a credit will be issued for replacement material to the authorized distributor from which the product was purchased. Direct replacement material may be authorized on a case-by-case basis only, and an individual failure shall not be construed as an indication of failure for the entire vinyl graphic package.