GV729

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Version #1 (0823)
Approved by N.G.

Product

IMAGin® GRUV™
GV729

Product Description

GV729 is a 2.0-mil soft white **gloss**, **highly conformable cast**, premium PVC film designed for solvent, latex and UV ink jet printing. The product is coated on one side with either a permanent (GV729P) or removable (GV729R), opaque, acrylic pressure sensitive adhesive and supplied with a 90# polycoated 2-side air egress release liner.

GV729 is designed for partial vehicle wraps for both long term indoor and outdoor advertising with the permanent adhesive as well as short term with the removable version on flat to complex curved surfaces. Use of RAYZor® and ColorGard™ overlaminates will extend the life of the graphic.

This product is NOT intended for small cut lettering applications, small intricate or narrow graphic decals, interior drywall murals, or wet application methods for installation.

Physical Properties

Property	Typical Values GV729P	Typical Values GV729R	Test Method
Peel Adhesion, lb./in (N/25mm) 180° on glass - 24 hr.	3.0±1 (13±4)	1.8±1 (8±4)	FTM-1
Quick Tack, lb. /in² (N/25mm) Glass	3.0±1 (13±4)	1.8±1 (8.3±4)	FTM - 9
Dimensional Stability (inches) 48 hours @ 158°F	max 0.01	max 0.01	FTM - 14 10” x 10” Sample Bonded to aluminum
Temperature Ranges Minimum Application: End Use:	55°F (+12°C) -50° to 225°F (-45° to 107°C)	55°F (+12°C) -50° to 225°F (-45° to 107°C)	
Tensile Strength (lbs./inch)	>2.2	>2.2	ASTM D882
Elongation @ Break (%)	>120	>120	ASTM D882
Flammability	Self-extinguishing	Self-extinguishing	ISO 3795

Approved Print Methods:

Screen Printing:		**HP Indigo**	☐
UV Cured	☒	**Off-set**	☐
Solvent	☐	**Off-set UV**	☐
Digital: UV Inkjet	☒	**Thermal Transfer**	☒
Eco-solvent	☒	**Flexographic**	☐
True solvent	☒	**Laser**	☐
Latex	☒	**Jetrion**	☒

To achieve the best possible print quality, please make sure that the correct ICC profiles or printer settings are used. Profiles can be obtained from our Distributors or can be downloaded from www.mactac.com/graphics . Printer ICC profiles can also be downloaded from some O.E.M. or software manufacturer's websites.

The ICC profiles are provided solely as a customer resource. Print environments, the individual nature of printing systems, inks and software can significantly affect output. It is the customer's responsibility to determine the suitability of any profile for use in their specific print environment.

NOT INTENDED FOR:

1. ***Small cut lettering applications and small intricate or narrow graphic decals.***
2. ***Interior drywall murals***
3. ***Wet application method for installation***.

1) The user is responsible for determining the product's suitability, including adhesion and if needed, removal characteristics when used in applications other than listed specifically in this Performance Guide.

2) If there are any questions about applications, please contact your Mactac sales representative to discuss your requirements for recommendations.

3) If this is a printed Performance Guide it is an uncontrolled document. Please check the Mactac website for the latest, most up-to-date version.

DURABILITY: The outdoor durability of the unprinted film is 7 years.

	Vertical application (years)			Horizontal application (years)		
	Zone 1	Zone 2	Zone 3	Zone 1	Zone 2	Zone 3
GV729 With RAYZor®	7	5	1	4.8	3.6	Not Recommended
GV729 With ColorGard™	5	3	1	3	1	Not Recommended

Zone 1: **North America, North, West, Central & Eastern Europe** (excluding desert areas of the USA which are in zone 3)

Zone 2*:* **Central & South America, South Europe, Asia Pacific** (excl. Australia & New Zealand)

Zone 3: **Greater Middle East** (e.g. Egypt, Israel, Iran, Morocco, Western Sahara, Algeria, Tunisia, Libya, and Mauritania), **Africa, Australia, New Zealand**, USA (Arizona, California, Florida, Nevada, New Mexico, Texas, S. Utah), and **Mexico.**

MARINE GRAPHICS: Marine applications have different requirements and therefore different expectations. Graphics manufactured using Mactac's GRUV vinyl products are warranted to maintain acceptable appearance for one year from date of application. Marine graphics applied under the water line are not warranted.

Mactac requires the registration of a completed and signed Inspection Report for each vehicle wrap in the unlikely event of a future claim. This report identifies any potential problem areas and clearly defines the obligations between the applicator and the vehicle owner. A completed copy of the inspection report and the appropriate vehicle template must be on file at Mactac prior to application. The inspection report is attached at the end of the Application Guide TA2501 and the B-Free Vehicle Warranty MAC2588 which are available on the Mactac website at www.mactac.com/graphics . Registration acknowledges that your company has received the Application Guide and a copy of this warranty and agrees to all the requirements and limitations outlined in these documents.

REMOVABILITY: GV729, when laminated, is cleanly removable for up to five years after application with heat. *"Clean Removability"* means that when removing the emblem, the pressure sensitive film will leave less than 20% of the adhesive on the substrate. Some substrates are affected by the application of the GV729 such as; acrylic glass, polycarbonate, polystyrene, nitro-cellulose paints and plasticized PVC's. Besides damaging the substrate, subsequent removal could be difficult.

RECOMMENDATIONS:

Always test your combination of IMAGin products, inks and overlaminating films prior to commercial use.

1. **Printing Conditions:** Print in conditioned pressroom at ±73°F (23°C) and 50% RH. The maximum allowable ink saturation is 270%.
2. **Drying Step:** It is **critical** the GV729 print is properly dried prior to overlaminating or application. While this is important in all solvent inkjet prints it's especially so with GV729. We strongly recommend leaving the print *open to the air* (not rolled up in a tube) for a minimum of 24 hours prior to overlaminating or application. For average ink saturation (i.e.: 270%). Higher levels of ink will require additional drying time up to 48 hours or more. Residual solvents in the vinyl and adhesive will negatively affect the bubble free properties of the adhesive and can result in a significant build or loss in adhesion resulting in potential substrate or graphic failure and/or more residual adhesive being left behind upon removal. Additional hot air drying or IR drying will speed up the drying process and shorten the overall drying time.
3. **Overlaminating Conditions:** Ensure print is perfectly dry. Material must have 24 - 48 hr. drying time *open to the air*, not rolled up in a tube, prior to lamination or transportation. If the printed graphic is likely to be exposed to corrosive liquids, smoke, fumes, and highly polluted areas or there is a likelihood of scratching, it is highly recommended to overlaminate with **RAYZor**, **LF3600, series** or **ColorGard LUV8000 series**, overlaminating films. Please be aware that adding an overlaminate will reduce conformability to complex surfaces.
4. **Application Tape**: Use of an application tape (transfer tape) is **not recommended** or needed if an overlaminate is used. If you must use an application tape, use one with a Stainless-Steel adhesion of no greater than 4 - 6 oz/in. Upon removal of the application tape, you must heat and re-squeegee all edges. Failure to do this will result in edge lifting.
5. **Not recommended surfaces includes, but is not limited to**; rubber and plastic, aged paint (chalking) and metals (corrosion or oxidation), improperly cured paint, surfaces with poor paint-to-surface adhesion, over existing graphics that must remain upon removal, oily surfaces, unpainted wood, etc.

6. **Transportation Conditions:** To allow for easy transportation, IMAGin series can be rolled up, with the image out, with a minimum diameter of 6 inches (15cm). When the image is not protected by an overlaminate, make sure the print is completely dry and protected in a plastic bag. During transportation or storage, avoid exposing them to extreme temperature and humidity changes.
7. **Removing GV729:** Heat the vinyl to approx. 160° - 180°F using a heat gun or propane torch or a weed burner for large areas (be careful not to burn the vinyl or the substrate). Pull off the film in small pieces. Listen to the sound of the vinyl as it's pulled off. The noise level will increase as the vinyl and adhesive cools. At a certain level (experience is the best teacher) you will know when it is time to re-heat. This will help you prevent paint failure as you pull the graphic off. Any adhesive residue can be removed using a towel soaked in alcohol or other commercially available adhesive remover. *Be sure to follow manufacturer's directions and use personal protective gear*.

- *Values given are typical and are not necessarily for use in specification*.

CALL **1-800-321-8834 for additional product information**

IMPORTANT NOTICE: The information given and the recommendations made herein are based on our research and are believed to be accurate, but no guarantee of their accuracy or completeness is made. In every case, user shall determine before using any product in full scale production, or in any way, whether such product is suitable for user's intended use for their particular purpose under their own operating conditions. User assumes all risk and liability whatsoever in connection with their use of any product. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose, or any other warranty, express or implied. No representative of ours has any authority to waive or change the foregoing provisions, and no statement or recommendation not contained herein shall have any force of effect unless in an agreement signed by the officers of seller and manufacturer. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without authority from the owner of the patent. The following is made in lieu of all warranties, express or implied: Seller's and manufacturer's only obligation shall be to replace or credit such quantity of the product proved to be defective at its discretion.

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