

PRODUCT INFORMATION SHEET



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GAC ACRYLIC SPECIALTY POLYMERS

GAC 100 (Product #3910)

GAC 200 (Product #3920)

GAC 400 (Product #3940)

GAC 500 (Product #3950)

GAC 700 (Product #3970)

GAC 800 (Product #3980)

GAC 900 (Product #3990)

PRODUCT DESCRIPTION

GACs can be blended with GOLDEN Acrylic Paints to extend the paint, regulate transparency, create glazes, increase gloss, reduce viscosity or improve adhesion and film integrity. The GAC polymers can also be used for binding pigment solids for various effects and surfaces. Unlike the other GOLDEN Mediums and Gels, GAC Acrylic Polymers have only a minimum amount of thickeners, levelers, defoamers and surfactants to ensure good film formation.

The consistency of the GAC polymers is very fluid, and thinner than other GOLDEN Mediums. Since they do not have thickeners added, these polymers will reduce the thickness of most GOLDEN Acrylic Paints. GOLDEN Fluid Acrylics are slightly thicker than the GACs, but will be the color line least changed in viscosity with any addition of a GAC polymer.

Each GAC product represents a unique polymer that offers certain specific attributes. Therefore, each GAC will have its own unique benefits and applications. Refer to the individual product description of each GAC (below) to find the proper medium to use for a particular application.

PRODUCT APPLICATION

Mixing

GAC polymers should be gently stirred or rocked back and forth prior to use, but should never be shaken, as this will incorporate significant amounts of foam which will be very difficult to eliminate. Foam can severely affect the transparency of the film causing an apparent foggy or hazy

quality. When applying with a brush, use minimal agitation and force, and do not overwork, as this too will result in foaming.

Spraying

If spray application is desired, blend with GOLDEN Airbrush Medium. Start at 2 parts GAC Medium to 1 part GOLDEN Airbrush Medium. When faster drying is required, replace the Airbrush Medium with GOLDEN Airbrush Transparent Extender.

Varnishing

The GAC polymers are intended for use as binders, modifiers or additives for acrylic paints. They are not intended for use as a final varnish. Golden Artist Colors manufactures two different varnish systems, Polymer Varnish and Mineral Spirit Acrylic (MSA) Varnish (See the GOLDEN Varnish Information Sheets for more details).

ADDITIONAL INFORMATION

Support Induced Discoloration:

Common supports (e.g. cotton canvas, linen, masonite) contain water-extractable materials that can cause discoloration in transparent glazes. To minimize Support Induced Discoloration (S.I.D.), prime support with 2 coats of GOLDEN GAC 100.

Replacing Rabbitskin Glue:

Traditionally, rabbitskin glue (also known as hide glue) was used to reduce the flexibility of canvas before painting. Although the rabbitskin glue does reduce flexibility, it is extremely brittle. It is hygroscopic, which means that it will always be water-soluble. Even when the glue is completely dry, high humidity will re-introduce water into the film, causing it to soften or swell up. Over time, this constant swelling and drying of the film can cause severe paint-film cracking and delamination.

GAC 400 can be used in a similar fashion for stiffening canvas. Apply directly to the front of the raw canvas for maximum stiffness. It is imperative that it be applied directly to the raw canvas. It is ineffective over any other medium, and most likely will flake off and cause delamination of subsequent paint layers. Since GAC 400 is not effective against oil penetration, the use of GAC 100 over GAC 400 is recommended for oil painters

Note: Since GAC 400 is brittle, it is important that it not be rolled tightly, or bent back upon itself. This will cause cracking of the polymer film and may transfer cracks into additional paint layers. This is especially a risk with cured oil paints.

Linseed Oil Blocker:

Two coats of GAC 100 before gessoing will substantially reduce linseed oil penetration into the canvas fibers. If stiffness and oil-blocking are desired, apply a coat of GAC 400 to the front, directly into the raw canvas, followed by one coat of GAC 100 onto the front of the canvas. Follow this by the desired number of gesso coats.

GAC POLYMER INDIVIDUAL PRODUCT DESCRIPTIONS

Use the below descriptions to decide which attributes are best-suited for a particular application:

GAC 100: Universal Acrylic Polymer / S.I.D. Blocker / Most Flexible GAC Polymer.

- This polymer is one of the most universal used in paint manufacturing. Artists who had used "Rhoplex" (a registered trade name) will find that this GAC most closely reflects the properties to which they were accustomed.
- The GAC 100 is a useful polymer for protecting against Support Induced Discoloration (S.I.D.).
- The most flexible with a moderate level of tack and gloss.
- Useful for diluting and extending colors, especially when film flexibility and integrity are important characteristics.
- Wets pigment surfaces well. The most ideal for artists formulating their own paints.

GAC 200: Increases Film Hardness of Acrylic Paints / Increased Non-porous Surface Adhesion.

- The hardest and least flexible of any Golden Acrylic product. Caution is advised when using this product alone.
- Used in its pure form, it is limited to applications on rigid supports, as its lack of flexibility may lead to cracking when flexed. Under certain conditions, the medium alone may crack upon drying.
- Ideal as an additive to acrylic paints to increase film hardness and reduce dry film tack.
- Improves adhesion to non-porous surfaces; however some surfaces, such as glass and glazed tile, will not allow for a permanent bond
- Dries with high gloss and excellent film clarity.
- Promotes cleaner edges of hard-edge techniques. The harder paint film has less "pull" as the masking tape is removed.

GAC 400: Fabric Stiffener / Rabbitskin Glue Alternative.

- Dries to a very hard and stiff film.
- Most useful for priming fabrics (cotton, linen, silk, etc.) when stiffness is desired.
- Used as a rabbitskin glue alternative when applied directly to raw canvas or linen.
- Allows sculpting and shaping of draped fabrics.
- **Note:** *Optional heat setting will decrease water sensitivity but also releases low levels of formaldehyde; therefore if choosing to heat set it is recommended that adequate ventilation be provided.*

GAC 500: Self Leveling Applications / Hard Yet Flexible / Best Isolation Coat Medium for Spray-Application.

- Unique balance of film hardness and flexibility.
- Mix 2 parts GAC 500 to 1 part *Airbrush Transparent Extender* to produce a good spraying, fast-drying isolation coat.
- Beneficial as an additive for acrylic paints for increasing mar resistance and decreasing dry film tack, without disturbing the balance between hardness and flexibility.
- Useful when working on flexible or rigid supports.
- Offers a self leveling working quality.
- Dries to high gloss film with good clarity/transparency.

- Useful to hard-edge painters to seal masking tape for cleaner edges. Apply over masking tape. Let dry before applying additional paint layer.

GAC 700: Increases Film Clarity.

- Dries to a clear, high gloss film, with moderate hardness and exceptional transparency.
- Offers reduced shrinkage upon drying.
- **Note:** *This emulsion has a tendency to generate foam during application. Exercise care while brushing.*

GAC 800: Reduced Crazing of Dried Films / Best for Direct Pouring.

- Most useful as an additive for acrylic paints when pours/puddles are desired to dry with the same film thickness and smoothness as when wet. Most acrylics will craze, which is the formation of valleys that run through a pour/puddle nullifying the uniformity of the film. Such crazing is the result of shrinkage forces exerted during the drying process. GAC 800 stands alone in its resistance to such film discontinuity.
- Dries with good gloss and film flexibility, but with a slight "hazy" quality.
- Useful as a modifier when adhesion to chalky surfaces is desired.

GAC 900: Increases Launderability of Acrylic Paint.

- Designed to be used as a modifier for acrylic paints for painting on clothing. See the [GOLDEN Acrylics on Fabric Application Information Sheet](#) for more extensive information.
- Offers a soft, pliable feel and when properly heat-set, provides excellent laundering stability.
- Blend with *GOLDEN Heavy Body, Matte or Fluid Acrylics* for brush or screen application.
- Mix with *GOLDEN High Flow Acrylics* for "Tie-Dye" effects.
- *Note: The heat-setting process will release low levels of formaldehyde; therefore it is recommended that adequate ventilation be provided.*

Disclaimer

The above information is based on research and testing done by Golden Artist Colors, Inc., and is provided as a basis for understanding the potential uses of the products mentioned. Due to the numerous variables in methods, materials and conditions of producing art, Golden Artist Colors, Inc. cannot be sure the product will be right for you. Therefore, we urge product users to test each application to ensure all individual project requirements are met. While we believe the above information is accurate, WE MAKE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, and we shall in no event be liable for any damages (indirect, consequential, or otherwise) that may occur as a result of a product application.