



Golden akrylfernis

Polymer Varnish - Gloss with UVLS: 07710, Satin with UVLS: 07715, Matte with UVLS: 7720

Product Description

GOLDEN Polymer Varnish with UVLS (Ultra Violet Light Stabilizers), is a water-based acrylic polymer varnish formulated to provide additional protection from ultraviolet radiation. This will help delay the inevitable fading which will occur in materials which may be fugitive in nature.

Polymer Varnish is designed as a topcoat for acrylic paints and offers a removable protective surface to the relatively soft acrylic paint layer. Having a harder film than most acrylic paints, it diminishes the susceptibility of the surface to attract and imbed dust and dirt, and provides increased protection from scratching, marring, and moisture. It has adequate flexibility to withstand normal handling conditions, including loose rolling. For interior use only. The product is not recommended for use on furniture or other surfaces subject to physical contact during use.

Polymer Varnish remains soluble in alkaline solvents, such as ammonia. This means the varnish can be easily removed, taking with it any accumulated surface contamination without damaging the painting surface. The use of such a removable varnish provides a valuable tool to anyone trying to restore or clean a painting.

Polymer Varnish-Gloss dries to a highly reflective finish. The Satin offers moderate reflection, similar to most matte varnishes. The Matte is exceptionally flat. The different finishes can be intermixed, or used sequentially, to achieve the desired sheen. Note: Polymer Varnish - Satin and Matte - will lighten dark value colors, which is typical of non-gloss varnishes.

Polymer Varnishes must be thinned before use. They have been formulated thicker than the traditional application viscosity to maintain an even suspension of matting agents in the Satin and Matte finishes, which insures more consistency in surface reflectance as the varnish is used. It also allows the varnish to be applied with minimal foam generation. While foaming is a major problem with most water-borne acrylics, when properly thinned, the Polymer Varnish is able to release all foam before drying.

Technical Data

Adhesion:

Adheres to most porous, non-oily surfaces.

Aging Characteristics:

Accelerated aging of a 2.5 mil thick film, under fluorescent UVA lamps for 400 hours resulted in no visible color change. It will remain soluble.

Appearance:

Translucent when wet, clears upon drying.

Applications:

Recommended for interior use only, as a varnish for acrylic paints. Also works well as a removable topcoat for Golden Mineral Spirit Acrylic Paints.

Chemical/Water resistance: ASTM D 1308, Open Spot Test, 6 mil drawdown on nonabsorbent surface.

Chemical Tested	Effect Over Time	Effect Over Time
	15 minutes	1 hour
Water (cold):	Transient fogging	Blanching, Gloss loss
Water (hot):	Gloss Loss, Softening	NA
Isopropanol:	Blanching, Softening	Film loss
Ethanol:	Solubilized film	NA
Vinegar:	Major gloss loss	Same
Liquid Detergent:	Slight gloss change	Same
Cooking Oil:	Slight gloss change	Same

Coverage:

400-500 sq. ft. per gal. by brush application; 800-1000 sq. ft per gal. by spray application.

Drying/Curing time:

Dries to the touch within 30 minutes. May be recoated after 1-3 hours.

Flexibility: ASTM D 522, Test Method B - Cylindrical Mandrel Test at 70°F., 3 mil thick film passes at 4" diameter mandrel. Adequate flexibility to withstand loose rolling and restretching at room temperature. Varnish film becomes more brittle below 50°F, and should not be bent or flexed under such conditions. Withstands expansion and contraction caused by changes in temperature and humidity.

Gloss Retention:

After 400 hours UVA exposure, Polymer Gloss Varnish retained 95% of initial gloss.

Hardness/Mar resistance:

Relative to acrylic paint, varnish yields a slightly harder, lower tack surface which is less susceptible to imbedding dirt. ASTM D 3363, Film Hardness By Pencil Test, Scratch Hardness is "HB".



6B-5B-4B-3B-2B-B-HB-F-H-2H-3H-4H-5H-6H
.....Softer.....X.....Harder

Satin and Matte finishes are inherently more marable than the gloss varnish.

Matting Agent:
Amorphous Silica

Refractive Index:
Reichert Abbe Mark 2 Refractometer at 22°C:
Gloss- 1.3746; Satin- 1.3798; Matte- 1.3797

Removability:
Easily removable with household ammonia (avoid using any sudsing or scented grades).

Resin:
Acrylic/Styrene copolymer solution, Solids: 23%

Specular Gloss:
Typical values when applied as a drawdown over a nonabsorbent card. First number indicates varnish applied as supplied and the second number indicates varnish thinned 30%.

	Gloss	Satin	Matte
20°F	66, 56	-	-
60°F	87, 81	6.1, 6.6	.9, .7
85°F	-	-	13, 11.5

Thinning:
Required prior to use. Start with a ratio of 3 parts varnish to 1 part distilled water for brushing; and between 1 and 2 parts varnish per part water for spraying.

Ultraviolet Protection:
Hindered Amine Light Stabilizer and Ultraviolet Absorber (substituted benzotriazole compound.) The thicker the film of Golden varnish w/ UVLS, the greater the protection.

Vehicle:
Water.

Viscosity:
Brookfield RV, range as supplied; 1200-2500 cps

Water Permeability:
ASTM D 1653, Test Method B, Condition C; 16 perms. Will not fog or turn cloudy when exposed to high humidity or low temperature.

Procedure for Polymer Varnish Removal

Removing a varnish is a very consequential process that should not be considered lightly, as the appearance of the artwork can be changed or damage could result from improper handling. The task is often best left to a professional conservator, particularly with works of special significance or unknown composition. However, there are times, as when something has gone amiss in the application, that it may be appropriate for the artist to do the work.

GOLDEN Polymer Varnish films remain soluble in alkaline solutions, the most common being household ammonia. Avoid products that have a scent added and sudsing varieties, which may contain soap.

Before embarking on a varnish removal mission, carefully consider the materials that are to be used, and how to do so in a safe, controlled manner. Polymer Varnish removal requires the use of ammonia, thus requiring proper personal protective equipment. Such equipment may include, an ammonia respirator, latex gloves and aprons, and chemical splash goggles or face shield. Also, work in an area with good ventilation.

First, test the solvent on a small area of the painting, or preferably on a test piece, to determine its effectiveness at dissolving the varnish. A good procedure for removing the varnish is to start with a soft, low lint cloth (50/50 cotton/polyester T-shirt material works well). Saturate this cloth in ammonia and lay over an area of the varnished surface. If possible, work with the painting in a horizontal position, on a table or floor.

If the work must be done vertically, as on a wall, a method would have to be devised for keeping the saturated cloth in contact with the varnished surface. In either case, to minimize evaporation, use a plastic sheet to blanket the saturated cloth.

Work in areas no larger than 2 square feet per application. Larger areas tend to become cumbersome and make thorough varnish removal difficult. Allow the saturated cloth to lie on the painting for 2-5 minutes. Then, remove the cloth and use a clean ammonia dampened cloth to gently pat the surface to remove the varnish. Excessive force may damage the paint layers below the varnish. Repeat this process until the entire painting surface has been treated.

After a single treatment over the complete surface of the painting, some residual varnish may remain. Repeat the procedure, and continue doing so until the varnish has been sufficiently removed. Proceeding with more ammonia exposure may result in some swelling of the paint layer.

Source: GOLDEN Artists Colors, Inc.