GO07730 – GO07740 GOLDEN MSA Varnish

Gloss w/UVLS (GO07730), Satin w/UVLS (GO07735), Matte w/UVLS (GO07740)

Product Description:

GOLDEN Mineral **S**pirit **A**crylic Varnishes with UVLS (Ultra Violet Light Stabilizers) dry to a tough, yet flexible protective finish. The UVLS system provides increased resistance to the harmful effects of ultraviolet radiation, making the product suitable for exterior as well as interior application. For restoration purposes, the **varnish may be removed** with mineral spirits or turpentine.

MSA Varnish can be used over a wide variety of paints, including acrylic, oil, alkyd, egg tempera, watercolor, and casein. **As a topcoat for acrylics, it provides a harder, lower tack surface that is much less susceptible to dirt** and is more mar resistant. When spray applied, it functions well as a consolidant for mediums such as soft pastel, chalk, oil pastel, charcoal, tempera and dry pigment. It can also be mixed with oil and alkyd paints to accelerate drying and improve flexibility.

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

As a solution polymer, MSA Varnish is clear when wet. Compared to aqueous varnishes, this allows for better visual properties during application. It also suffers significantly less from foam generation and pinholes that can detract from the clarity and appearance of the finish. The varnish produces an extremely level finish, and is able to coat slick supports including glass and most plastics and metals.

MSA VARNISHES MUST BE THINNED BEFORE USE. They have been made thicker than the traditional application viscosity to maintain an even suspension of the solids within the varnish. Often, particularly in matte finishes, settling can result in streaking within the varnish film.

Technical Data

Adhesion: Adheres to most non-oily surfaces, including most plastics and degreased metals. May exhibit poor adhesion to fresh (unpolymerized) oil films or acrylic paints, if residual surfactants are present.
Aging Characteristics: Accelerated and intensified aging tests of this varnish indicate it will not yellow or become brittle under long term conditions of interior exposure. It will remain soluble, but may require a slightly stronger solvent mixture for removal of a very mature film. Duration under conditions of exterior use depends markedly upon the location and conditions of exposure, as well as the substrata of the painting.

Appearance: Excellent clarity when wet and upon drying

Applications: May be used as an interior or exterior varnish for acrylic, oil, alkyd, egg tempera, watercolor, gouache and casein paints. When spray applied, it is suitable for use as a consolidant of soft pastels, chalks, oil pastels, charcoal, temperas, and dry pigments. May be mixed with oils or alkyds to modify viscosity, drying time or improve resistance to cracking.

Chemical Resistance: Resoluble in certain strong solvents (mineral spirits, turpentine, benzene and related aromatics, acetone, methylene chloride, ketones, alcohols). Resistant to water and household cleaning compounds.

Coverage: 400-500 square feet per gallon if by brush application; 800-1000 square feet per gallon for spray application.

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Drying/Curing Time: Usually becomes tack-free and suitable for recoating after 3-6 hours. Most curing will occur within two weeks

Flexibility: Adequate flexibility to withstand normal handling conditions, including rolling and restretching at room temperature. Like all acrylics, MSA films become more brittle at temperatures below 50oF, and should not be bent or flexed under such conditions. Withstands expansion and contraction caused by changes in temperature and humidity. ASTM D 522, Test Method B- Cylindrical Mandrel Test at 70o F., 3.5 mil thick film passes at two inches diameter mandrel.

Gloss Retention: After 1200 hours UVA exposure, MSA Gloss varnish retained 99% of its initial gloss

Hardness/Mar Resistance: Relative to acrylic paint, MSA yields a harder, lower tack surface which is much 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-2H-3H-		4H-5H-6H
Softer	X	Harder

Satin and Matte finishes are inherently more marable than Gloss varnishes.

Matting Agent: Amorphous Silica

Refractive index: Using Reichert Abbe Mark 2 Refractometer at 22oC = 1.48

Removability: MSA Varnish is removable with mineral spirits, turpentine or higher boiling point petroleum distillates.

Resin: Solution of isobutyl and n-butyl methacrylate. Thermoplastic.
Solids: 33%

Solvent: Supplied solubilized in Mineral Spirits.

Specular Gloss: (75o geometry) as supplied- "Gloss" 95, "Satin" 35, "Matte" 8. Thinning of varnish and absorbent substrate will decrease the sheen.

Thinning: Required prior to use. Start with a ratio of 3 parts varnish to 1 part solvent for brushing; and between 1 and 2 parts varnish per part solvent for spraying. Due to geographical variations in mineral spirits, distilled or rectified white turpentine is recommended for thinning the varnish. Avoid gum turps and always use fresh turpentine as it tends to discolor with age. Avoid "odorless" thinners.

Ultraviolet Protection: Hindered Amine Light Stabilizer and ultraviolet absorber (substituted benzotriazole compound).

Viscosity: Brookfield RV, as supplied; Gloss, 1000-1500 cps; Satin, 2000-3000 cps;
Matte, 2500-3500 cps.

Water Permeability: 1.48 perms. Almost 5 times less porous than the normal acrylic paint film. Will not fog or turn cloudy when exposed to high humidity or low temperature.

Removal Procedure

Removing a varnish is a very consequential process that should not be taken 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.

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Golden MSA Varnish films remain soluble in such solvents as mineral spirits, turpentine, acetone, benzene, toluene, naphtha and some alcohols and esters. However, many of these solvents can damage the acrylic paint, and are not recommended for removing varnish from paintings. **The solvent of choice should be mineral spirits or turpentine**, with the exception of odour-less solvents which are not strong enough.

Before embarking on a varnish removal mission, carefully consider the materials that are to be used, and how they can be used in a safe, controlled manner. Varnish removal requires the use of solvents, thus requiring proper personal protective equipment. Such equipment includes, but is not restricted to, appropriate respirator, impervious gloves and aprons and chemical splash goggles or face shield. Careful inspection of the labels on the solvents to be used should aid in determining your safety needs. Also, work in an area with adequate ventilation and guard against ignition sources and high temperatures which could cause vapors to ignite.

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. Another quick check may be made by mixing the solvent into the wet varnish. If the varnish becomes thinner, the solvent is compatible. If the varnish gets cloudy and/or thicker, the solvent is not compatible and should be avoided. Unfortunately, there is no way of knowing without trying.
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 solvent 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 solvent 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 solvent-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. This may be indicated by an extremely tacky or gummy surface. Repeat the procedure, and continue doing so until the varnish has been sufficiently removed. Proceeding with more solvent exposure may result in some swelling of the paint layer.
The solvent soaked cloth and leftover solvent should be handled and disposed of carefully. Never pour solvent down the drain. Small quantities can be allowed to evaporate. Larger quantities can be saved for reuse or treated as hazardous waste. The cloth should be allowed to completely dry in a well ventilated area before disposal or putting into storage for another use.

Health & Safety

COMBUSTIBLE: May be harmful by breathing vapors. Exposure may result in nausea, headache, confusion, instability or irritation of the eyes or chest. Exposure may cause allergic reactions, anemia, damage to female reproductive organs, infertility or damage to the kidneys or liver. Contains: 2-(Hydroxy-di-amylphenyl) Benzotriazole, acrylate monomers and petroleum distillates.

Precautions: Avoid prolonged contact with skin. Wash hands immediately after use. When using do not eat, drink or smoke. Keep away from eyes. Wear safety goggles of face shield. Use exhaust fan to remove vapors and assure adequate cross ventilation. Do not use near heat of flame.

First Aid: If eye contact occurs, rinse immediately with water. Remove contact lenses then flush with tap water for 15 minutes. If symptoms occur, move to fresh air. If symptoms persist, see a physician. For further health information contact a poison control center.

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