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Extreme Protection Polyurethane

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CrystaLac's Company History

In 1989 CrystaLac® waterborne finishing products enjoyed immediate success as a waterborne product. As far back as 1995 CrystaLac® received top ratings above 35 other waterborne products in a comparison study, and still continues to stay on top. Offering a full range of wood, metal, and custom waterborne coatings, CrystaLac® rapidly found its way into finishing shops and homes across the United States. CrystaLac® quickly became identified by its ease of use, optical clarity and its tough protective qualities. Today, CrystaLac® can now be found worldwide.

What is CrystaLac®?

CRYSTALAC® Waterborne Finishing Products are highly developed pure grade "acrylothane™" resins. Ongoing research and formulation insure that all CrystaLac® users will always have the latest waterborne technology available.

CRYSTALAC® Waterborne Finishing Products are a safe alternative that can be used in place of nitrocellulose lacquer, oil-based polyurethane, or varnishes. CrystaLac® is great on most anything that demands a quality protective finish. It is specialized for use on wood, but can be used on metal, ceramic or other selected surfaces.

CRYSTALAC® Waterborne Finishing Products are designed to be HVLP spray compatible as well as applied with traditional conventional spray applications.

CrystaLac® Extreme Protection

CRYSTALAC® Extreme Protection Polyurethane is an interior Non-Yellowing, Environmentally Safe Top Coat that is extremely hard, extremely clear and extremely easy to use. It is resistant to scratches, household chemicals, low heat and water damage (such as water rings from a glass). Extreme Protection also self-levels, has no odor, and a low V.O.C. It cleans up easily with water. Extreme Protection can be used anywhere an extra level of protection is needed. Added UV stabilizers will keep dyes and stains brilliant and will help protect colors from fading. It dries crystal clear even over white and black finishes, stains and paints. It is excellent for use as a chalk paint sealer.

Application and Use

Basic Guide:

Product Details:

Extreme Protection Polyurethane

Sheens:

Matte, Satin, Semi-Gloss, Gloss

Application Tool:

Bristle brush, Foam Brush, Wipe on, or Spray

Location:

Interior Wood Surfaces

Recoat:

After 2 hours

Dry Time:

2 hours / Up to 30 days full cure

Cleanup:

Water

Coverage:

120-150 sq. ft. per quart

Coats:

3 to 5 coats are recommended.

Recommended Uses:

Painted furniture, woodwork, doors, cabinets, bar and table tops, floors and accessories

EXTREME PROTECTION POLYURATHANE PRODUCT USE GUIDE

CrystaLac® Waterborne Finishing Products are carefully formulated to provide the professional and beginning finisher with ease of use an excellent quality finish. Before using CrystaLac® Extreme Protection, it is important to read the General Product Use Guide and be totally familiar with the character of CrystaLac® products and the use of waterborne finishes to achieve the best possible results. DO NOT use tack cloths or steared sandpaper.

PREPARATION FOR USE OF CRYSTALAC® TOPCOATS

PRODUCT PREP:

Stir product thoroughly to ensure that any settled particles mix through the coating. DO NOT SHAKE. You may want to filter the coating before use. Use a paper cone filter or a “nylon” filter to strain. In most instances CrystaLac® finishes can be sprayed straight from the can. If you use any CrystaLac® additives (Reducer, Retarder) be sure to mix THOROUGHLY through the coating. This will ensure that the additive will have its proper affect upon the coating (enhanced leveling and flow-out).

FINISHING AREA AND ENVIROMENT:

It is important to provide a clean, ventilated, stable temperature environment in which to apply CrystaLac® finishing products. CrystaLac® is self-leveling and dries rapidly. A hard cure and crystal clarity will occur best at an average temperature of 70° F with a gentle circulation of moving air. This will aid in rapid surface evaporation of water and minimize or eliminate grain raising. Extremes should be avoided. Using below 60° F or above 80°F can affect the performance of the finished coat. After the coating is dry to touch, it will take airtime to cure and harden. The temperature should remain constant through this time period. DO NOT store CrystaLac® finishing products below 60°F. Avoid freezing

WOOD PREPARATION:

Careful sanding and preparation of your project will help ensure a good quality finish. Recommended sanding grade is 220 -600. The finer grades of sandpaper will help keep wood grain tight and minimize or eliminate grain raising. CAUTION: USE OF COATED OR STEARATED SANDPAPERS can leave residue on the surface. This can cause the coating not to bond property to the surface. This would be evident if the coating suddenly separated into a series of small clear crater like circles. (Sometimes called fish eye). Lack of adhesion can also occur if any oils or silicones are left on the surface to be coated. DO NOT USE steel wool or tack rags as these sometimes contain lubricants and silicones. Avoid any material that might contaminate the surface. If you suspect a problem clean the surface, before re-spraying, with CrystaLac® Surface Conditioner. In addition, spraying on cold wood may cause the coating to perform erratically. Be sure that the wood and the coating to be applied are at normal room temperature.

PREP: USE OVER OTHER FINISHES:

CrystaLac® Extreme Protection can be successfully applied over oil-based stains, previously coated surfaces with lacquer, urethanes, shellacs, varnishes etc. It is critical that the surface to which CrystaLac® is applied be free of oil, wax, dust, and polish. Newly applied oil-based stains and solvent finishes must be THOROUGHLY dry, and solvents COMPLETELY evaporated and “gassed off” for proper bonding and adhesion to occur. Premature application will result in bubbling, foaming, and non-adhesion of CrystaLac® to the surface. When applying CrystaLac® Coatings over a surface that has had paint remover applied, be sure that the surface has been thoroughly cleaned, and no waxy residue remains on the surface or in the wood grain. It is advisable to test for proper adhesion over all oil-based stains, non-waterborne coatings or stripped surfaces before continuing with the entire job.

PRODUCTION APPLICATION

The best application tool is up to the individual’s experience. CrystaLac® can be applied by brushing, wiping, or by using conventional spray or HVLP turbine sprayers.

SPRAY FINISHING APPLICATION:

Three stage HVLP turbines or HVLP conversion spray guns will offer optimum performance. Avoid the extreme of either too fine a mist or flooding of material. Apply a light wet film and you're done (2 Mils). The most common error when spraying waterborne coatings is applying a thick wet coat. A little practice and experience will help you achieve the right technique and best results. Always spray horizontal surfaces holding your spray gun on a slight angle away from you. Begin close and work away from you to avoid over spraying the work you just finished.

A HLVP system and a 1mm tip and needle (.039) will usually provide the most excellent results. If using conventional compression air systems, a fine lacquer tip is suggested at pressures of 40-45psi. HLVP Air Conversion Spray guns will usually atomize CrystaLac® with 4.5-5.0 psi air cap pressure. Adjust if necessary. Since airless sprayers are not usually used for fine finishing, we suggest you test spray samples before committing to the job. This applies to assisted airless spray equipment.

HOW MANY COATS SHOULD BE APPLIED?

The answer to this question depends on what you are trying to achieve for a finished appearance. Usually 3 or 4 coats (sanding with 320 - 400 paper between coats if necessary) will provide excellent depth of finish. For optimum protection we recommend four coats or more. Allow additional time for drying between each application. We recommend at least a few hours, though be aware temperature and humidity effect dry time. It is best to give more time if necessary, between coats. This will permit internal additives to evaporate and not become trapped by the multiple coats. This ensures proper curing, hardening and print resistance.

RE-COATING:

When applied properly, CrystaLac® Extreme Protection will usually be dry to touch in 30 to 45 minutes. Extremely wet applications (which should be avoided) will take slightly longer. Under normal conditions 1 to 2 hours should be sufficient to sand and re-coat. Re-coating too soon can sometimes cause an orange peel effect and may extend the final cure time of the product. BE PATIENT!!!! Wait at least 1 to 2 hours before applying the next coat. Remember this material is a mechanical bond. It does not re-melt the previous coat. If necessary, sand between coats with 320 grit or finer. Use 400 grit or finer with pigmented enamels. Clean sanded surfaces by blowing off any dust and using a damp cloth. If you are concerned about possible contaminants on the surface, wipe surface with CrystaLac® Surface Conditioner. Or a 50/50 blend of denatured alcohol and water.

NOTE: Cold or wet days may extend dry time. CrystaLac® can be dried in the sun, however, do not apply additional coats on a hot surface.

CLEAN-UP

CrystaLac® can be easily cleaned with water. No harsh chemicals necessary!

When cleaning spray guns, wash and rinse spray gun with warm water. It is sometimes possible to hold your spray gun under a running faucet letting warm water flow through the material pick-up tube while pulling back the trigger permitting the water to float through the spray jet to flush out any of the remaining coating. If waterborne coating dries on any of the spray equipment it will need to be softened and soaked with CrystaLac® Spray Gun Cleaner or acetone, then brushed and thoroughly rinsed off. Use appropriate cautions using any solvent based products to clean spray guns as they are hazardous materials. Additionally, the use and storage of many solvents is restricted or prohibited in some locations. Check local codes before use of solvent based products.