Kaufman Products’ curing and sealing compounds are premium quality products, for use on both freshly poured and aged concrete. They comply with all applicable local, regional, and federal regulations, including the Environmental Protection Agency (EPA), the Ozone Transport Commission (OTC), and the Lake Michigan Air Directors Consortium (LADCO). Using these products correctly will help to give concrete its best properties. This document gives recommended instructions and guidelines for correct product usage.

Recommended Field Procedures for Curing & Sealing Compounds

**Preparation**
Prior to application of the curing compound, concrete slabs must be placed and finished in accordance with American Concrete Institute guidelines, such as ACI 302.1R: Guide for Concrete Floor & Slab Construction. For formed concrete, refer to ACI 207.1R: Mass Concrete. Concrete should be clean and free of form oil and other contaminants before application.

**Product Application**
Apply product to freshly placed concrete slabs immediately following the disappearance of the surface water sheen (or bleed water) after final finishing. Delaying application will result in the curing compound soaking into the slab & not forming an adequate membrane which will impact its ability to promote proper hydration, as well as resulting in an uneven gloss on the surface of the concrete.

Lightly agitate product immediately prior to use for 1 – 3 minutes using a low speed mixer, fitted with a Jiffy mixer or similar mixing paddle. Larger volumes of product may be agitated with a diaphragm air pump or positive displacement pump at 500 rpm or less. Do not use high-speed or gear-driven pumps or agitators with wax-based products. Apply all curing and sealing compounds by either a sprayer or a medium-heavy (3/8") nap paint roller. Use the appropriate nozzle and tip (25 – 100 psi. or 0.2 – 0.7 MPa.) to produce a properly atomized spray. For very large jobs, use a high quality power sprayer. Use Chapin nozzle # 1-5937 or equivalent when applying high solids curing compounds (25% solids content or higher), especially water-emulsions. Make two applications at right angles to each other to give the most complete and uniform coverage. Do not allow product to puddle. In addition, the use of a lamb’s wool applicator will generally remove any roller marks or bubbles in the coating. When spraying solvent-thinned products use a sprayer that includes Viton equipped parts.

Apply product at the coverage rate, in ft²/gallon, listed on the label or data sheet, or as otherwise specified. Verify that the coverage rate is correct by counting the number of containers used, multiplying by the number of square feet of concrete treated. On very heavily textured slabs, make two separate applications each at 200 ft²/gallon (5 m²/liter). Allow the first application to dry before applying the second. Application of curing compound on a slab that appears dry, but is continuing to bleed, can result in map cracking of the dried curing compound and reduction in moisture retention within the slab. If this occurs, reapply the curing compound.

Before applying curing compounds to concrete surfaces from which formwork has just been removed, spray the concrete with water immediately after form removal. Allow the concrete to reach a uniformly damp appearance with no standing water, then immediately apply the curing compound. When applying products as sealers (i.e. not as curing compounds) ensure that concrete has been allowed to cure for at least 28 days. The curing & sealing compound may penetrate unevenly, as concrete is unevenly porous, creating a darker finished concrete and highlighting the natural color variations in concrete. Always clean equipment promptly with mineral spirits or xylene (for solvent-borne products) or with potable water (for water-borne products).

**Removal**
Use EasiKleen EM to remove DR Cure, Thinfilm 420, 450, and 453. Use K Pro CD to remove Thinfilm 422, 424, 445, 445FL, and 446. All others, remove using approved bead-blasting techniques, or with the use of a heavy duty paint remover such as methylene chloride.

**General Precautions**
After application, protect from rain and other wet conditions for at least 3-4 hours. Cold weather and hot weather conditions will affect the proper drying of curing & sealing compounds, particularly water-emulsions. We recommend using these products on days with a minimum of 40°F. In addition, wind protection is highly recommended. Products should be applied as supplied; do not add water or other thinners. Do not apply curing compounds to slabs designed to be static dissipative, disseminating; or to slabs to receive toppings without prior removal or unless otherwise approved. When Krystal Series products are applied to porous surfaces (and particularly unevenly porous surfaces), such as flagstone, slate, terrazzo, or old concrete, the product will penetrate unevenly. The uneven penetration of the product may lead to an uneven or blotchy finish.
We recommend the use of many of our products with carpet or tile mastics. However, they are not acceptable for use with grout beds, cement toppings, epoxies, or many other flooring systems. When applying tile or carpet over cured concrete, always follow the adhesive manufacturer’s recommendations. Curing compounds should be removed mechanically or chemically if they are not approved for use under any subsequent system.

If the coating is over-applied, it will not dry correctly, and this is especially noticeable with water-emulsion products where the product may remain white (hazing) or cause discoloration. Applying the product at the recommended rate of application will help to solve this problem. In addition, we suggest the use of a lamb’s wool applicator or paint roller to soak up excess coating that has puddled in the depressions of the concrete.

Curing & sealing compounds are not permanent coatings, and will require cleaning and re-coating every so often depending upon the exposure to abrasion, UV radiation, and chemical exposure.

PRIOR TO USE, STOP AND READ AND UNDERSTAND THE PRODUCT LABEL, SAFETY DATA SHEET AND PRODUCT DATA SHEET.

Precautions For All Water Based Products
All water-borne products, with the exception of wax-based materials, are freeze-thaw stable, and simply require being brought back to room temperature and stirred or lightly agitated prior to use. The wax based materials that are not free-thaw stable are Thinfilm 422, Thinfilm 424, Thinfilm 445, Thinfilm 445FL, and Thinfilm 446. Coated floors are slippery when wet. Barricade wet areas and post wet floor signs as appropriate. Use SureGrip for added skid resistance.

**General Precautions For All Solvent Based Products**
Solvent-borne products are flammable; take care to avoid open flames and sparks. Always extinguish all lighted tobacco products. Solvent based products should only be used on exterior applications. If used in areas where fumes can enter a structure make certain to block all HVAC ducts, doors, or windows, which may distribute solvent odor. Turn off any air conditioning or heating systems that may bring the fumes inside the structure. If solvent odors, safety concerns, or the fast drying times of solvent based materials are objectionable, use one of our emulsion (water based) products such as Krystal 15 Emulsion, Krystal 25 Emulsion, Krystal 30 Emulsion, Krystal 15 Emulsion EF, Krystal 25 Emulsion EF, or our safer solvent versions called Krystal 25 PCBT and Krystal 30 PCBT. With solvent-borne products, take care to avoid residual water in application equipment. Coated floors are slippery when wet. Barricade wet areas and post wet floor safety signs, as appropriate. Use SureGrip for added skid resistance.

**Additional Precautions Specifically For Krystal OTC Series Products**
Use extreme caution when using Krystal 25 OTC and Krystal 30 OTC, because they both possess extremely low flash points, and they are significantly more hazardous than any of the other solvent-thinned products in our line. Keep containers closed until ready to use. Do not thin. These products will not freeze; however bring the temperature of the products up to at least 60°F by leaving it in a warm environment. Never apply direct heat to these products. Heavy applications can lead to improper drying, bubbling and discoloration. Do not apply to surfaces meant to receive a cementitious topping. Not for interior use. This product is highly flammable, and vapors may ignite explosively, causing flash fires, severe burns, and death. Use with adequate ventilation and keep away from open sparks, flames, pilot lights, stoves, water heaters, electric motors, and any other sources of ignition during use and until all vapors are gone. Vapors are heavier than air, and may travel long distances to areas away from work site before igniting and exploding. Prevent the buildup of vapors; use ONLY with substantial cross ventilation. Do not breathe vapors or spray mist, and ensure fresh air during application and drying. If eye watering, headache, dizziness, or air monitoring demonstrates vapor/mist levels are above the applicable limits, wear an appropriate and properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer’s directions for proper respirator use. If a spill occurs, contain the spill and use an inert absorbent. Make certain to properly dispose of the absorbent. **Do not smoke while applying this product or anywhere near the related vapors.**

Krystal OTC products dry very rapidly. When spraying, make certain to keep the sprayer tip within 8" of the concrete surface. Hot weather, direct sunlight, or windy conditions may cause Krystal OTC series products to bubble. The ideal conditions for placement are cool, overcast days when the temperature is 50-80°F, throughout application and complete drying of the product.

The complete Safety Data Sheet on all products are available on our website at www.kaufmanproducts.net, and may be requested by phone at (800) 637-6372.

For professional use only. Not for sale to a consumer of for use by the general public.

LIMITED WARRANTY: We warrant our products to be of good quality and will replace material proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement, Kaufman Products, Inc. makes no warranty or guarantee, expressed or implied, including warranties of fitness or merchantability, respecting its products, and Kaufman Products, Inc. shall have no other liability with respect thereto. User shall determine the suitability of the product or the intended use and assume all risks and liability in connection thereto. Our salesmen, distributors, and their salesmen have no authority to change the printed recommendations concerning the use of our products.