

# KrystalKote™ DATA SHEET

**KrystalKote™** is a two-component, high-solids, low VOC, cross-linked, aliphatic polyurethane coating possessing outstanding resistance to harsh environmental conditions, graffiti, caustic chemicals, abrasion, impact, & flexing. Available in **Clear gloss** or **satín**; **Custom** (tinted) in **semi-gloss**, **satín**, or **flat**; and slip-resistant **KrystalTred™**. **KrystalKote™** is resistant to the effects of U-V and I-R: clear will not yellow, and colors will not noticeably fade for 5/7/10 years. **KrystalKote™** has proven flexibility and tolerance to expansion & contraction, providing a crack-resistant surface, desirable in harsh environments such as heavy construction equipment, shipboard and marine exposure. **KrystalKote™** is completely resistant to hydraulic, lubricating and cutting oils, alcohols, food stains, normal acids & alkalies, salts, solvents, fuels, paints, inks, asphalt, wet concrete, algae, pesticides, fertilizers, creosote, CCA, & all pressure treating chemicals, and temperatures to 450°F. **KrystalKote™** is USDA-Approved for use in food processing plants & food handling environments, and exceeds EPA and all State requirements as a completely chemical impervious coating for lumber industry drip pads. **KrystalKote™ CalTrans Formula** is CalTrans-Approved and *specified* as a *Graffiti-Resistant* clearcoat for traffic signs & soundwalls, is impervious to graffiti solvents & pigments, and cleans efficiently with approved cleaners, such as **GT-1000™** or **GT-2000™**.

## Product Selection

**KrystalKote™ Clear** is an ideal coating for element-exposed and graffiti-prone fixtures, such as traffic signs, aggregate and metal light poles, monuments, murals and commercial signs. **Clear** will not yellow and will protect underlying colors from fading.

**KrystalKote™ Custom** can shield traffic control boxes, heavy construction equipment, maintenance vehicles, bridges, block walls, etc., against graffiti and weathering. Custom-matched colors will not noticeably fade or discolor for five to ten years. **KrystalKote™** forms a non-porous, monolithic surface, resulting in a very low coefficient of friction.

**KrystalTred™** is chemically-puckered, to increase traction under all conditions, for use on sidewalks, locker room floors, shower areas, pool decks, transit bus floors, truck beds, loading ramps, garage & hangar floors, catwalks, fire escapes, vehicle running boards, kennels, boat decks, marina and dock facilities. **TexShel®**, a porous, natural organic aggregate, may be added for maximum traction.

**KrystalKote™** exhibits excellent durability and high resistance to impact, cracking, chalking, yellowing, abrasion, graffiti, normal wear & tear, and weathering in general. Low V.O.C. qualifies **KrystalKote™** as an SCAQMD Extreme-Performance Coating, as outlined in Rule 1107 Definition (12).

## Coverage

One gallon of **KrystalKote™** covers approximately 850 sq.ft. (field use) at 1-mil Dry Film Thickness (DFT). Recommended DFT is 3.5-mil to 4-mil. **KrystalTred™** in two coats is recommended for a DFT of 7-mil to 9-mil.

## Surface Preparation

**KrystalKote™** must be applied to a clean surface: no oil, grease, dust, powder, water or any contaminants permissible. All rust and millscale must be removed. Acid wash or shotblasting may be required, followed by a water wash to remove excess chemicals and residue. The surface must be absolutely dry before application of **KrystalKote™**. Water-based or epoxy primer may be used for some metals, and a paintable penetrating sealer, such as **KrystalSeal™**, may be used on concrete, block or wood, prior to **KrystalKote™** application. At least 24 hours is recommended between primer/sealer and topcoat.

## Mixing

**KrystalKote™** is supplied in two parts, which must be mixed before use. Use caution while mixing: both materials are flammable, as is the mix. Do not attempt to mix or use below 40°F or above 110°F. **KrystalKote™** comes pre-proportioned by weight: 10 parts Base to 3 parts Curing Agent for **Clear** and 3 parts Base to 1 part Curing Agent for **Custom** and **Tred**. Each "Base" container will have an appropriate "Curing Agent" component. At least 5 minutes of moderate speed mixing should be used; longer for large quantities or if pigmented, as it may settle in transit. Mixing should be done on-site and with ventilation. If the temperature is between 40°F - 65°F, a cold-weather catalyst is required; and between 85°F - 110°F, a hot-weather retarder may be used as per the table on the reverse sheet. Do not mix more than can be applied in the appropriate potlife time per Curing Time / Temperature Table.

(over)

## Application

Use caution during spray application, as air-borne **KrystalKote™** is flammable. All standard painting equipment can be used. Acetone, M.E.K., or an approved polyurethane reducer, may be used to reduce **KrystalKote™** to sprayable consistency to reduce "orange peel" and "fish eye". A "thin" first coat may be applied and then allowed to "tack" dry in @ 45 minutes at 77°F. A final coat can then be applied at a right angle to the first coat. Or a multi-directional, single "normal" coat of **approx. 5-mil WFT** (approx. 4-mil DFT) may be applied with caution to guard against vertical "sagging". Stack time is approx. 8-hours, and final cure time is approx. 72-hours. Guidelines for lettering, decals and trim application times available upon request.

## Cleanup

Before **KrystalKote™** cures, tools & equipment may be cleaned with: Acetone, Toluene; M.E.K.; Lacquer thinner; or an approved low-VOC reducer/cleaner.

## Colors & Finish

**KrystalKote™ Custom** and **KrystalTred™** can be color-matched to nearly any homogenous color sample. Standard colors are clear, white, black, and gray. All colors available in gloss. Medium-tones and clear available in satin. Only light-tone colors available in flat. Custom colors require 4-gallon minimum order.

## Packaging

**KrystalKote™** is supplied in 1-gallon cans, four each 1-gallon cases, 4-gallon kits, and 55-gallon drums, complete with separate, proportioned curing agent. Other packaging options are available. Color and finish, cold-weather catalyst or hot-weather retarder must be specified at time of order.

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## Physical Properties

V.O.C. tinted:	192 grams/liter (1.6 lbs/gal)
clear:	228 grams/liter (1.9 lbs/gal)
SCAQMD Rating:	Extreme Performance Coating per Rule 1107 para (12); Indust. Maint. Graffiti Coating per Rule 1113 para (17).
Coverage - theoretical:	1280 ft <sup>2</sup> /gal at 1-mil DFT.
actual on metal:	@ 212 ft <sup>2</sup> /gal at 4-mil DFT.
actual on porous:	@ 125 ft <sup>2</sup> /gal at 4-mil DFT.
Solid Content (by wt):	80% (clear) -85% (tinted)
Consistency:	Brushable/Sprayable
"Pot" Life	approx. 2-hr at 75°F
"Re-coat" Time	approx. 45-min at 75°F
"Tack Free" Time:	approx. 2-hr at 75°F
"Stack" Time	approx. 8-hr at 75°
"Full Cure" Time	approx. 72-hr at 75°
Adhesion:	Excellent on: metals, wood, concrete, masonry, rubber, vinyl flooring, tile, etc.
Tensile strength:	6,000 P.S.I.
Elongation:	100%
M.E.K. 100-rub test:	Pass
Impact resistance:	Excellent: 1-lb. ball/5-ft drop: No chipping or cracking.
Flexibility:	Excellent: 180° bend over 1/8" mandrel: No chip/cracking.
Taber abrasion:	Outstanding: Taber Abrader with CS-17 wheel and 1 kg pressure. Film loss: 1-mil per 13,000 revolutions.
Salt-spray:	No film deterioration/lifting after 1,500 hours at 90°F and 20% salt solution.
Weather resistance:	Excellent.

## Temperature Extremes Table

Catalyst (per gallon)	
Below 40°F	Do not mix or apply
40°-45°F	2 tablespoons
45°-55°F	1 tablespoon
55°-65°F	1 teaspoon
Retarder (per gallon)	
85°-95°F	½ pint
95°-105°F	1 pint
105°-110°F	2 pints
Above 110°F	Do not mix or apply

Your Distributor: