DURA-KOTE FLAKES

SURECRETE DESIGN PRODUCTS

PACKAGING
1 - 25 lb. (11.34 kg) box
12 - colors

COVERAGE
Full Coverage = Approximately 125-175 ft²
(11.6 - 16.3 m²) per box

SHELF LIFE
Under normal, moisture free conditions, 12 months for unopened container

TECHNICAL DATA SHEET

DESCRIPTION

Dura-Kote Flake system creates a vibrant, multi-hued, seamless, resilient surface from plain grey concrete. Although the system is simple both in composition and installation, it yields an exceptionally durable and long lasting floor. This system is composed of a binder, one of the ***Dura-Kote Epoxies*** and ***Dura-Kote Flakes***, random shaped polymer chips, available in 12 color options. The polymer chips provide not only the pleasing palette of color, but also add a measure of slip resistance to the surface. The combination of colors is effective in hiding stains and dirt between cleanings. ***Dura-Kote Epoxy*** is ideally suited for garage floors, commercial kitchens, locker rooms, sports venues, automotive showrooms, veterinarian clinics, landro-mats, or anywhere that an exceedingly resilient floor is required.

SUREFACE PREP

The principles for surface preparation of the ***Dura-Kote Flake*** system are aligned with other overlay systems placed on concrete and remain constant; the substrate must be:

1. Clean: The surface must be free of dust, dirt, oil, grease, paints, glues, sealers, curing agents, efflorescence, chemical contaminants, rust, algae, mildew & other foreign matter that may serve as a bond breaker or prevent proper adhesion. To remove coatings, paint, sealers, glue from concrete, etc. best results are achieved through diamond grinding.

2. Cured: Any concrete must be sufficiently cured to have complete hydration, approximately 28 days depending on temperatures & humidity.

3. Sound: No system should be placed on flaking or spalling concrete. If the surface is delaminating, or divots are present, then diamond grinding or other mechanical means should be used to remove the delaminating areas. Depending upon size of area, patching may be required prior to application of ***Dura-Kote Flake*** system. ***SureBroom*** or ***Deep Level*** are excellent patching products to complement the system. Refer to their respective spec. sheets. Also, cracks may require treatment: evaluate crack as static or structural to set expectation of treatment. Refer to spec. sheet on ***SCT-22 Crack and Spall Treatment***.
Construction Joints in concrete may have sufficient movement to "telegraph" through the ***Dura-Kote Flake*** system. Large expansive slabs should have planned appropriate flexible caulks to allow for this movement and prevent bridging of the ***Dura-Kote Flake*** system across either side of the construction joint.

4. Profiled: For a proper bond, the surface of concrete must be opened up or roughed up to feel like 80 – 120 grit sandpaper. This profile is best accomplished through diamond grinding or shot blasting. Proper profile should follow the standard established by the International Concrete Repair Institute (ICRI) Technical Guideline no. 03732 for Concrete Surface Profile (CSP). The established profile is categorized as CSP-2 or CSP-3.

Additionally, since the ***Dura-Kote Flake*** system are not vapor permeable:
5. Moisture vapor emissions require attention. Because of the uncertainty of specific concrete placement that may be over inadequate vapor barriers, testing prior to application is appropriate.

a. Plastic sheet test (ASTM-D-4263) can often identify excessive moisture vapor transmission. Tape all 4 sides of an 18" (45 cm) square of clear plastic to the slab and leave in place for 16 hours. Any condensation formed or darkening of the slab beneath the plastic indicates the surface is too wet for an epoxy.

b. Calcium Chloride test (ASTM-F-1869) will quantify the amount of moisture that is transmitted to surface of the slab. The moisture measurement is expressed in terms of pounds (kg) per 1,000 ft² (m²) per 24 hours. Measurements that are in excess of 3 pounds per 1,000 ft² (1.4 kg per 100 m²) over 24 hours are too wet for an epoxy. Follow directions of test kit manufacturer.

Note: these observations and measurements may be inherently flawed as they are "snapshots in time". These tests serve only as guidelines.

TEMPERATURE/CURE

Whenever practical, this system should be applied in conditioned spaces, as temperature extremes (hot or cold) and high humidity are problematic. Avoid application on extremely hot days or during wet, foggy weather. Basic rules include:

- Apply in ambient and surface temperatures ranging above 50°F (10°C) and below 95°F (35°C) and that will remain within ranges for at least 12 hours
- Surface temperature must be a minimum 5°F (3°C) above dew point
- Relative humidity should be below 85%

Cold temperatures slow the cure rate. To illustrate:

Cure Rates @ 77°F (25°C)	*Cure Rates @ 50°F (10°C)*
Dry to touch = 4 – 5 hrs	Dry to touch = 18+ hrs
Light traffic = 16 hrs.	Light traffic = 30 hrs.
Full cure = 5 – 7 days	Full cure = 14 days

Conversely hot temperatures speed the cure rate.

15246 Citrus Country Drive
Dade City, Fl 33523
www.SURECRETEDESIGN.com

SURECRETE DESIGN PRODUCTS

APPLICATION

Binder Coat

Choose a binder coat color from the 100's that are available and that is complementary to the ***Dura-Kote Flakes*** that are selected. Binder coats may be either ***Dura-Kote Pigmented Epoxy 100*** or ***Dura-Kote Pigmented WB Epoxy***.

Some applicators may elect to use ***Dura-Kote Pigmented WB Epoxy*** for its simplicity in placement and increased square footage coverage, as it is applied in a thinner millage.

For floors having numerous small holes or divots (e.g. blow-outs from carpet tack strip), ***Dura-Kote Pigmented Epoxy 100*** can fill and "self-level" across the areas that would otherwise require patching, as it can be applied in much thicker millage. For specific directions on binder coat refer to the appropriate spec. sheet.

While the binder coat is still wet, approximately 10- 20 minutes, the broadcasting of Dura-Kote Flakes is ready.

Broadcasting

The applicator must work in spiked shoes throughout the broadcasting. Toss by hand the ***Dura-Kote Flakes*** upward so that they float down to the wet bond coat. Broadcast sufficient flakes to rejection; completely cover the surface. If the floor has low spots where the binder coat is deeper, flakes may "sink." Broadcast sufficient flakes to completely saturate the low spot especially if slip resistance is of concern. Allow the floor to dry / cure sufficiently, usually 8 – 10 hours.

Clean-up flakes

Scrape the floor vigorously with a metal floor scraper to remove excess ***Dura-Kote Flakes***. Utilize a stiff push broom to help this process. Depending upon size of area, a leaf blower may be appropriate. For large interior areas, vacuuming is appropriate. The left over flakes may be gathered and bagged for use on another project.

Finish Coat

For superior abrasion and chemical resistance the system requires a protective finish coat. There are several choices that have varying advantages:

- ***Dura-Kote Polyurethane Solvent Base Clear Gloss*** – high gloss
- ***Dura-Kote Epoxy 100*** – high build
- ***Dura-Kote Polyurethane Water Base Clear Gloss*** – low VOC
- ***Dura-Kote Polyurethane Water Base Clear Satin*** – tone down the gloss
- ***Dura-Kote PFC 120 Hybrid Solvent Based Polyaspartic*** – quick dry

For specific directions on finish coat refer to the appropriate spec. sheet.

SLIP RESISTANCE

Two recognized US agencies have issued directives on minimum coefficient of friction, OSHA (Occupational Safety and Health Administration) and Department of Justice through the ADA (Americans with Disabilities Act). ADA is the most stringent of the two. ADA directs that accessible walkways have a minimum coefficient of friction of 0.6. Ramps have been directed to be 0.8. The applicator assumes the responsibility to meet these standards.

Especially surfaces that may become wet, oily, or greasy require attention. Refer to spec. sheets on ***SureGrip (Additive)*** and its accompanying coefficient of friction table.

SUITABILITY SAMPLE

Always prepare an adequate number of test areas, including wear protection system and aesthetic suitability for products' intended use.

CLEAN-UP

Before ***Dura-Kote Flakes*** dry; spills and tools can be cleaned up with a solvent such as denatured alcohol.

DISPOSAL

Contact your local government household hazardous waste coordinator for information on disposal of unused product. Upon curing, left over catalyzed product is not hazardous.

LIMITATIONS

For use by trained professionals, having read the complete MSDS. Strictly interior use, upon well drained concrete slab with appropriate vapor barrier, subject to no hydrostatic pressure.

WARRANTY

Warranty of this product, when used according to the directions, is limited to refund of purchase price, or replacement of product (if defective), at manufactures/seller's option. SureCrete Design Products shall not be liable for cost of labor or direct and/or incidental consequential damages.

CAUTIONS

KEEP OUT OF REACH OF CHILDREN. Keep areas ventilated to prevent the accumulation of vapors. **Inhalation:** Avoid prolonged breathing of vapors. Use NIOSH approved respirator for organic vapors if threshold limit values are unsafe. **Skin Contact:** Skin contact may cause irritation. Remove contaminated clothing and wash affected skin with soap and water. Launder clothing before reuse. If symptoms persist, seek medical attention. **Eyes:** Wear safety eye protection when applying. Contact with eyes may cause irritation. Flush eyes with water for 15 minutes. If symptoms persist, seek medical attention.

TECHNICAL DATA SHEET

15246 Citrus Country Drive
Dade City, Fl 33523
www.SURECRETEDESIGN.com

SURECRETE DESIGN PRODUCTS