



ADVANCED MATERIALS FOR INDUSTRY

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Additives, Coatings & Colors,

## PRODUCT DATA SHEET

### Guardcote GFC

#### PRODUCT DESCRIPTION:

Guardcote GFC is a two component 93% (+/- 1%) solids epoxy colored coating designed for applications where a high solids coating is needed before applying high solids or 100% solids topcoats for build coats over concrete.

#### RECOMMENDED FOR:

Recommended for a high build basecoat on concrete or masonry. Product is suitable in many chemical exposure environments.

#### SOLIDS BY WEIGHT:

93% (+/- 1%)

#### SOLIDS BY VOLUME:

85% (+/-2%)

#### VOLATILE ORGANIC CONTENT:

Part A= .14#/gallon, part B= 2.1#/gallon

Mixed VOC less than 95 g/l

#### STANDARD COLORS:

Off white, light gray, medium gray, tile red, beige

#### OTHER COLORS ALSO AVAILABLE:

Dark gray, charcoal gray, brown, tan, light blue, and green *Special colors are available upon request*

#### RECOMMENDED FILM THICKNESS:

6-12 mils

#### COVERAGE PER GALLON:

133-267 square feet per gallon @ 6-12 mils

#### PACKAGING INFORMATION

3 gallon kit

(volume approximate) and 15 gallon kits (volume approximate)

#### MIX RATIO:

12 pounds (1.0 gallon) part A to 3.85 pounds (0.50 gallons) part B

(volumes approx.) (standard colors)

#### SHELF LIFE:

1 year in unopened containers

#### FINISH CHARACTERISTICS:

Gloss (typical 60 at 60 degrees )

#### ABRASION RESISTANCE:

Taber adrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 45 mg loss

**ADHESION:** 430 psi @ elcometer (concrete failure, no delamination)

#### VISCOSITY:

Mixed= 500-800 cps (typical, most colors)

#### DOT CLASSIFICATIONS:

Part A "not regulated"

Part B "Flammable Liquid N.O.S., 3, UN1993,PGIII"

#### FLEXURAL STRENGTH:

8,200 psi @ ASTM D790

#### YIELD COMPRESSIVE STRENGTH:

8,300 psi @ ASTM D695

#### TENSILE STRENGTH:

6,800 psi @ ASTM D638

#### GARDNER VARIABLE IMPACTOR:

50 inch pounds direct – passed

#### ULTIMATE ELONGATION:

2.5%

#### HARDNESS:

Shore D= 80

#### CURE SCHEDULE: (70°) pot

life – 1 1/2 gallon

volume .....35-55 minutes tack free (dry to

touch).....6-9hours recoat or

topcoat.....10-14 hours light foot

traffic.....12-1hours full cure

(heavy traffic)... .....2-days

#### APPLICATION TEMPERATURE:

60-90 degrees F with relative humidity below 85% for best results

## CHEMICAL RESISTANCE:

REAGENT	RATING
butanol	C
xylene	C
1, 1, 1 trichloroethane	B
methanol	A
ethyl alcohol	C
skydrol	B
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric Acid	C
70% sulfuric acid	A
10% HCl (aq)	C
5% acetic acid	B

NOTE: extensive chemical resistance information is available through your sales representative.

Rating key: A - not recommended, B - 2-hour term splash spill, C - 8-hour term splash spill, D - 72-hour immersion, E - long term immersion.

### PRIMER:

Primer to eliminate air release defects.

### TOPCOAT:

Recommend epoxy coatings or high builds. Topcoat with aliphatic urethanes for increased UV stability.

### LIMITATIONS:

\*Color stability or gloss may be affected by environmental conditions such as high humidity or chemical exposure.

\*Colors may vary from batch to batch.

\*This product is not UV color stable but has fairly good color stability, topcoat recommended but optional.

\*Substrate temperature must be 5°F above dew point.

\*For best results, apply a 1/4" nap roller

## INSTRUCTIONS

- 1) **PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Low temperatures or great temperature fluctuations may cause crystallization.
- 2) **SURFACE PREPARATION:** The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil, and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.
- 3) **PRODUCT MIXING:** This product has a mix ratio of 12# part A to 3.85# part B for standard colors. Standard packages are in premeasured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.

- 4) **PRIMING:** This product is only intended as a high solids primer suitable for most substrates. However, if the surface is very porous, then a lower solids primer might be more suitable to reduce the possibility of air release problems occurring.
- 5) **PRODUCT APPLICATION:** The mixed material can be applied by brush, or roller. However, the material can also be applied by a suitable serrated squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating. Thinner applications will not level as well as higher build applications.
- 6) **RECOAT OR TOPCOATING:** Although a topcoat is recommended, it is optional. Many topcoats are suitable for placement over this coating including both urethanes and epoxies. When topcoating this product, you must first be sure that the coating has tacked off before topcoating can commence. Before topcoating, check the coating to verify no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product as an intermediate build coat.
- 7) **CLEANUP:** Use xylol
- 8) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.
- 9) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.

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