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**SEAL BOND™ FCS-407 SEAMLESS EPOXY BINDER**

**FCS-407: Description**

FCS-407 is a two component 100% solids epoxy seal coat with added UV resistance additives that can be used either as a coating or filled with paint chips, marble chips and colored sand mixtures to provide an infinite array of color schemes or patterns.

**SOLIDS BY WEIGHT:**

Mixed= 62% (+/- 2%)

**SOLIDS BY VOLUME:**

Mixed= 58% (+/- 2%)

**VOLATILE ORGANIC CONTENT:**

Part A= 3.2 pounds per gallon  
Part B= 1.40 pounds per gallon  
Mixed= 2.6 pounds per gallon

**COLORS AVAILABLE:**

Clear (Gardner 1-2)

**RECOMMENDED FILM THICKNESS:**

5-6 mils per coat wet thickness (yields 2-3 mils dry)

**COVERAGE PER GALLON:**

267 to 320 square feet @ 5-6 mils wet thickness

**PACKAGING INFORMATION:**

3 gallon and 15 gallon kits (volume approx.)  
3 gal kit= 2 gallons part A (8.65#/gal) and 1 gallon part B (8.3#/gal)

**MIX RATIO:**

8.65# part A (1 gallon) to 4.15# (1/2 gallon) part B (volumes approximate)

**SHELF LIFE:**

1 year in unopened containers

**FINISH CHARACTERISTICS:**

Gloss (>30 at 60 degrees @ Erichsen Glossmeter)

**FLEXIBILITY:**

No cracks on a 1/8" mandrel

**IMPACT RESISTANCE:**

Gardner Impact, direct= 50 in. lb. (passed)

**ABRASION RESISTANCE:**

Taber Abraser CS-17 calibrate wheel with 1000 gram total load and 500 cycles= 25.7 mg loss

**ADHESION:**

365 psi @ Elcometer (concrete failure, no delamination)

**VISCOSITY:**

Mixed= less than 200 cps (typical)

**DOT CLASSIFICATIONS:**

Part A "FLAMMABLE LIQUID N.O.S., 3, UN1993 PGIII"  
Part B "FLAMMABLE LIQUID N.O.S., 3, UN1993 PGIII"

**CURE SCHEDULE: (70°F)**

pot life – (1 1/2 gallon volume).....1-3 hours  
tack free (dry to touch).....3-7 hours  
recoat or topcoat.....7-10 hours  
light foot traffic.....12-24 hours  
full cure (heavy traffic).....2-7 days

**APPLICATION TEMPERATURE:**

60-90 degrees F with relative humidity below 90%

**CHEMICAL RESISTANCE:**

REAGENT	RATING
acetic acid 5%	D
xylene	D
toluene	D
1,1,1 trichloroethane	C
mek	C
methyl alcohol	C
gasoline	D
10% sodium hydroxide	E
50% sodium hydroxide	E
10% sulfuric	E
10% hydrochloric acid	E
20% nitric acid	C
ethylene glycol	E

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

**PRIMER:**

None required

**TOPCOAT:**

Many novolac products are suitable such as our FCS-402.

**LIMITATIONS:**

- \*Clarity of color may be affected by humidity, low temperature, chemical exposure, or exposure to lighting such as sodium vapor lights.
- \*Product is not UV color stable.
- \*For best results use a 3/8" nap roller.
- \*Slab on grade requires moisture barrier.
- \*Substrate temperature must be 5°F above dew point.
- \*All new concrete must be cured for at least 30 days.
- \*Physical properties are typical values and not specifications.
- \*This product should be top coated with a suitable novolac epoxy topcoat.
- \*Gardner colors may vary from batch to batch.
- \*See reverse side for application instructions.
- \*See reverse side for limitations or our liability and warranty.

## INSTRUCTIONS (FCS-407)

**PRODUCT STORAGE:** Store product in an area as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degrees F.

**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 disbanding.

**PRODUCT MIXING:** This product has a mix ratio of 9.0# part A to 4.15# part B. Standard packages are in pre-measured 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.

**PRIMING:** A suitable primer should be used before applying this product. See the front side of this technical data for primer information. If a primer is not used, more porous substrates may cause out-gassing and possible surface defects.

**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. This product can be used with various colored sand in a broadcast system or other suitable aggregate can be used in conjunction with this product to achieve a variety of color and application patterns. Contact your representative for details as necessary.

**RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time for the product before recoating or top coating can commence. Before recoating or top coating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to top coating or recoating. Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.

**CLEANUP:** Use xylol.

**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.

**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.

### Limitations on Our Warranty

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Listed physical properties are typical and should not be construed as specifications. No warranty is made, expressed or implied, regarding such other information, the data on which it is based, or the results you will obtain from its use. No warranty is made, expressed or implied that our product shall be fit for any particular purpose. No warranty is made that the use of such information or our product will not infringe upon any patent. We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Before using, read the material safety data sheet and follow all precautions.

