RUST-OLEUM®

Concrete Protection Systems

9000 SYSTEM FLORCLAD™ HD

EPOXY MORTAR FLOOR TOPPING

DESCRIPTION

FlorClad™ HD floor topping is a three component formulation of epoxy resin polymer, polyamine curative and carefully blended aggregate. An attractive, highly abrasion resistant, long lasting, and easily maintained floor used to resurface spalled concrete deteriorated by physical abuse and in new construction to prevent rapid physical deterioration of concrete floors.

FlorClad™ HD is a 3/16 to 1/4 inch floor topping that is easily applied. A screed box is used to place material at the desired thickness and a power or hand trowel are required to finish. FlorClad™ HD is designed to meet a wide variety of industrial flooring needs where abrasion and impact resistance are required and is suitable for food and beverage facilities.

This CPS Type II product is typically installed by factory trained contractors. Be sure you are fully aware of all application procedures and have all the required application equipment available prior to beginning application of this product.

FEATURES AND BENEFITS

- Heavy load capacity: FlorClad™ HD Has 2 to 3 times the load carrying capacity of concrete and is tough enough to resist the most severe traffic for long lasting service.
- Monolithic: It's monolithic construction provides a wall-to-wall seamless floor.
- Rapid turn around time: At application temperatures above 65°F, FlorClad HD can support foot traffic in 6-8 hours, with full physical use in 12-24 hours, and full chemical exposure in 4-5 days.
- Sanitary: In combination with the Concrete Protection Systems Epoxy Floor Coatings, FlorClad™ HD has extremely high density that resists gritting and traffic soil, will not support bacterial growth, will not hold odors, will not dust and is easily mopped cleaned or hosed off.
- Fire resistant: FlorClad™ HD is a naturally fire resistant material due to the high percent of mineral aggregate contained in the product.
- Suitable for food and beverage facilities when coated with Concrete Protection Systems Epoxy Floor Coatings as a seal coat.
- Cove base: FlorClad™ HD Cove Base provides a continuous monolithic transition from the floor to the wall.
- Typical areas of FlorClad™ HD applications: Warehouse, manufacturing, laboratories, electronics plants, and spalled concrete.

AVAILABLE COLORS

FlorClad™ HD is available in standard colors shown separately on the Product Color Guide. Custom colors are available upon request.

PACKAGING

Kit size	Part A	Part B	Part C
18 sq. ft.	— Premeasured quantities —		
200 sq. ft.	5 gal.	1 gal.	11 bags*
2,000 sq. ft.	1 drum	2x 5 gal.	110 bags*
10,000 sq. ft.	5 drums	1 drum	550 bags*

*Sold separately

COMPANION PRODUCTS

BlokFil
OverDrive
FlorClad™ Primer
Epoxy Floor Coatings

TEXTURE

A variety of surface textures can be achieved by using the Concrete Protection Systems Epoxy Floor Coatings, Heavy-Duty Epoxy Floor Toppings, or the 9600 System BriteCast™. Refer to the FlorClad™ HD Application Instructions for more information on textures.

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PRODUCT APPLICATION

SURFACE PREPARATION

NEW CONCRETE: Laitance must be removed by muriatic acid etching or shot blasting. On concrete has been cured with curing compounds or has had a hard steel troweled finish, shotblasting, sandblasting or other methods of mechanical preparation will be required. New concrete should be cured for a minimum period of 28 days at 70°F prior to application.

EXISTING CONCRETE: Concrete must be clean and sound. Old coatings and toppings must be removed. Concrete must be clean and free of previous coatings, oil, wax, paint, and other contaminants. The surface of the concrete must be clean and properly profiled to enable the coating to achieve maximum bond. Water soluble contaminants can be hosed off with water. Some water insoluble materials are difficult to remove and may require sandblasting, scabbling, or other methods of removal.

For either new or existing concrete, when preparation is complete, the surface texture should be similar to 60-80 grit sandpaper.

PRIMER

FlorClad™ Primer is applied to the prepared concrete surface using a rubber squeegee and back rolled with a 1/4 or 3/8 inch nap roller. Rate of application will vary depending on the surface texture and porosity. A typical application rate is 165 square feet per gallon. The primer should not be allowed to "set" prior to the placement of FlorClad™ HD. At 75°F, working time will be approximately 2 to 3 hours. If the primer sets prior to application of FlorClad™ HD, re-prime the area.

For more detailed information on priming, see the FlorClad™ Primer technical data sheet.

MIXING EQUIPMENT

18 sq. ft. kit: 5 gallon bucket mixer that rotates the pail and scrapes the bottom and sides.

200, 2,000, & 10,000 sq. ft. kit: 2.5 to 3.0 cubic foot mortar mixer Important: Hand mixing will produce inconsistent results and is not an approved method.

PRODUCT APPLICATION (cont.)

MIXING

Note: Before starting, ensure that the material, concrete surface, and the ambient air are all at 65-90°F. Mixing ratios are provided on container labels and on page 3.

Part "A" preparation: Premix part A to disperse pigment to ensure consistent color. Roll drums or use a drum mixer to pre-mix drummed material before use. Add part "A" (resin) to the mixer. Mix only long enough to clean the mixer from the previous batch, about 30 seconds.

Add part "B" (hardener) to part "A". Mix for 45 seconds to ensure complete mixing.

Add part "C" (aggregate) to parts "A" and "B". Mix for an addition minute. The aggregate must be mixed until completely wetted out by the resin.

THINNING

No thinning required.

FILLING AND PATCHING

When filling or patching holes or voids in the concrete surface prior to the actual application, use the same procedures as. TurboKrete®, Overdrive®,or Blokfil™ may also be used.

APPLICATION EQUIPMENT

Hand trowel, power trowel, and screed box

APPLICATION

To achieve a 1/4 inch thickness, the mortar is loosely placed at a thickness of 5/16 inch. For a 3/16 inch thickness, the mortar is loosely placed at a thickness of 1/4 inch. After screed placement, the mortar needs to be finished using a hand held steel finishing trowel or a specially designed power trowel. After a 6-8 hour cure, light surface grinding or sanding may be done prior to sealing with OverKrete® OP, OverKrete® Xtra OP, or OverKote® TX.

More detailed information can be found in the FlorClad™ Application Instructions (form #AI9801), which should be consulted prior to beginning.

CLEAN UP

Xylene can be used to remove material from equipment if it is cleaned before the material has started to set up. Otherwise, stronger solvents will be necessary. If there are any questions on the use of this product, please consult our technical service department.

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PRODUCT APPLICATION (cont.)

SHELF LIFE

Unopened, properly stored containers: 2 years

SAFETY

FlorClad™ HD contains amine curing agents. Avoid skin contact by using protective clothing and gloves. In case of eye contact or ingestion, contact a physician immediately. FlorClad™ HD is intended for industrial use only. This product should not be used by untrained or non-professional personnel. Material Safety Data Sheets The Material Safety Data Sheets can be found at www.rustoleum.com. It is strongly recommended that the Material Safety Data Sheets be read by all persons handling FlorClad™ HD.

PERFORMANCE CHARACTERISTICS

COMPRESSIVE STRENGTH

METHOD: ASTM C579

TYPICAL VALUE: 10,000 psi

FLEXURAL STRENGTH

METHOD: ASTM C580

TYPICAL VALUE: 3,150 psi

MODULUS OF ELASTICITY

METHOD: ASTM C580

TYPICAL VALUE: 5.0×10^5 psi

TENSILE STRENGTH

METHOD: ASTM C307

TYPICAL VALUE: 2,000 psi

BOND STRENGTH TO CONCRETE

METHOD: ASTM D4541

TYPICAL VALUE: Exceeds tensile strength of concrete (concrete fails first)

TABER ABRASION

METHOD: ASTM 4060, CS 17

TYPICAL VALUE: Loss/1,000 cycles = 30 mg.

PERFORMANCE CHARACTERISTICS (cont.)

WATER ABSORPTION

METHOD: ASTM C413

TYPICAL VALUE: 0.1% maximum

LINEAR SHRINKAGE

METHOD: ASTM C531

TYPICAL VALUE: 0.05% maximum

LINEAR COEFFICIENT OF THERMAL EXPANSION

METHOD: ASTM C531

TYPICAL VALUE: 3.4×10^{-5} in./in./°F

FLAMMABILITY

METHOD: ASTM D635

TYPICAL VALUE: Self-extinguishing

IMPACT RESISTANCE

METHOD: Mil-D-3134J

TYPICAL VALUE: Satisfactory per 3.15

COEFFICIENT OF FRICTION

METHOD: ASTM D2047

TYPICAL VALUE: 0.6 minimum

FILM HARDNESS, SHORE D

METHOD: ASTM D2240

TYPICAL VALUE: 85

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PHYSICAL PROPERTIES

		FLORCLAD™
Resin Type		Epoxy
Mixing Ratio		5:1
Induction Period		None
Pot Life @ 70-80°F (21-27°C) and 50% Relative Humidity		20 minutes
Dry Times at 70-80°F (21-27°C) and 50% rel. hum.	**Foot Traffic**	6-8 hours
	Vehicle Traffic	12-24 hours
	Full Cure*	4-5 days

*Coating achieves its full physical and chemcial resistant properties.

Calculated values are shown and may vary slightly from the actual manufactured material.

The technical data and suggestions for use contained herein are correct to the best of our knowledge, and offered in good faith. The statements of this literature do not constitute a warranty, express, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.

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