

RUST-OLEUM®



9000 SYSTEM

FLORCLAD™ HD

EPOXY MORTAR FLOOR TOPPING

DESCRIPTION AND USES

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 equipment available prior to beginning the installation 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 turnaround 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 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.

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

AVAILABLE COLORS

9000 System FlorClad HD is available in twelve standard colors. Custom colors are available upon request. Refer to the Rust-Oleum color chart. Product codes listed below are 18 sq.ft. Kits and 200 sq.ft. Kits. Standard colors are also available for 2,000 sq.ft. and 10,000 sq.ft. Kits. Aggregate is sold separately for 200, 2,000 and 10,000 sq.ft. Kits.

18 sq.ft. Kit	200 sq.ft. Kit	Description
236752	236753	Natural
236764	236765	National Blue
236772	236773	Light Green
236780	236781	Safety Yellow
236788	236789	Tile Red
236796	236797	Black
236804	236805	Dunes Tan
236812	236813	Dark Gray
236820	236821	Light Gray
236828	236829	Navy Gray
236836	236837	White
241733	241735	Super Light Gray

Sand quantities listed are exact. Actual usage typically requires 10-15% more.

COMPANION PRODUCTS

- BlokFil
- OverDrive
- OverKrete® S/OP
- OverKrete® Xtra S/OP/V

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.



TECHNICAL DATA

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PRODUCT APPLICATION

SURFACE PREPARATION

NEW CONCRETE: Laitance must be removed by muriatic acid etching, diamond grinding or shot blasting. On concrete that has been cured with curing compounds or has had a hard steel trowelled finish, shot blasting, sandblasting or other methods of mechanical preparation will be required. New concrete should be cured for a minimum period of 10 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 or ICRI CSP #5.

Concrete must be visibly dry at time of application.

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 mixing procedures as above or TurboKrete, OverDrive, or BlokFil may also be used.

APPLICATION EQUIPMENT

Hand trowel, power trowel or 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 #A19801), which should be consulted prior to beginning.



TECHNICAL DATA

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PRODUCT APPLICATION (cont.)

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.

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.

SAFETY DATA SHEETS

The Safety Data Sheets can be found at www.rustoleum.com. It is strongly recommended that the 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: 500,000 psi

TENSILE STRENGTH

METHOD: ASTM C307
TYPICAL VALUE: 2,200 psi

BOND STRENGTH TO CONCRETE

METHOD: ASTM D4541
TYPICAL VALUE: Exceeds tensile strength of concrete (concrete fails first)

PERFORMANCE CHARACTERISTICS (cont.)

TABER ABRASION

METHOD: ASTM 4060, CS 17
TYPICAL VALUE: Loss/1000 cycles = 30 mg.

WATER ABSORPTION

METHOD: ASTM C413
TYPICAL VALUE: 0.10% 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: 0.60 minimum unglazed

FILM HARDNESS, SHORE D

METHOD: ASTM D2240
TYPICAL VALUE: 85



TECHNICAL DATA

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PHYSICAL PROPERTIES

		FLORCLAD HD
Resin Type		Epoxy
Pigment Type		Varies depending on color
Solvents		Slight volume of xylene
Weight*	Per Gallon	9.3 lbs.
	Per Liter	1.11 kg
Solids*	By Weight	100%
	By Volume	100%
Volatile Organic Compounds*		<25 g/l (0.20 lbs./gal.)
Recommended Dry Film Thickness (DFT) Per Coat		250 mils (1/4" thickness)
Wet Film to Achieve DFT		250 mils (1/4" thickness)
Practical Coverage at Recommended DFT		18 sq.ft at 1/4" thickness
Mixing Ratio		5:1 base to activator by volume
Induction Period		None
Pot Life @ 70-80°F (21-27°C) & 50% Relative Humidity		20 minutes
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Foot Traffic	6-8 hours
	Full Use	12-24 hours
	Full Cure**	4- days
Shelf Life		2 years
Flash Point		>112°F (45°C)
Safety Information		CAUSES NOSE, THROAT, EYE AND SKIN IRRITATION. CAUSES EYE AND SKIN BURNS. HARMFUL IF SWALLOWED. MAY CAUSE ASTHMA, SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. SEE THE PRODUCT SAFETY DATA SHEET (SDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.

* Activated material

**Coating achieves its full physical and chemical 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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Form: GDH-283
Rev.: 042418