



Decking and Sealer Products Since 1923

Desert Crete Decking System

SPECIFICATIONS

1.0 DESCRIPTION

Desert Crete Decking System is a fire retardant walking deck and roof covering system. This system is a multi-step polymer modified cementitious system designed to incorporate a fiberglass reinforced acrylic resin waterproof membrane. Desert Crete Decking System can cover up at walls and curbs.

2.0 MANUFACTURER

Desert Crete Decking System is manufactured by Hill Brothers Chemical Company, Orange, CA (714) 998-8800.

3.0 QUALITY CONTROL

Desert Crete Decking System shall be installed only by a contractor trained and approved in writing by the manufacturer.

4.0 MATERIALS

- 4.1 Metal Lath
- 4.2 Polybase, Level Max 20/30
- 4.3 Desert Brand Bonder 480
- 4.4 Fiberglass Matting or Polyester Fabric
- 4.5 Desert Crete Texture or PDF
- 4.6 Desert Crete Liquid Polymer, Polymer 550
- 4.7 Desert Brand CMFPS
- 4.8 Desert Brand Master Seal
- 4.9 Desert Brand Master Seal WB

5.0 RELATED MATERIALS

5.1 Plywood: Wood sub-floor must be minimum 5/8" plywood and must comply to all applicable building code requirements in type and installation. It is recommended that sub-floor be installed so as to provide 1/4" per lineal foot fall in deck.

Wood sub-floor must be of such design and of sufficient soundness, structural strength and rigidity, to withstand, without deflection or movement, the maximum surface conditions to which the finished floor will be subjected.

5.2 Flashings: All slider and door thresholds, jambs, posts, scuppers, walls, and fascia must have primed galvanized metal flashing in accordance with building code requirements. It is recommended that Desert Crete Metal Nosing be installed on all deck drip edgings.

5.3 Drains: Drains shall be galvanized, copper, or as approved by the manufacturer.

6.0 SURFACE PREPARATION

6.1 All metal surfaces shall be cleaned of form oils or other bond-breaking compounds. Then primed with Desert Brand Bonder 480.

6.2 Drainage: Drainage is not a part of the standard Desert Crete Decking System specification and should be provided either structurally in a separate section of the specification or included herein the form of Desert Crete Poly Base underlayment.

7.0 EXECUTION

7.1 Metal Lathing

After all required flashing is in place, thoroughly secure hot-dipped galvanized metal lath (2.5 lbs. per square yard) upon the wood

sub-floor. Lap metal lath sheets together a minimum of 1" and lap all metal flashings with lath up to 1/4" - 1/2" from the vertical riser of the flashing.

7.2 Mixing

Mix all powder and liquids with a "jiffy" type mixing paddle. Mix all materials thoroughly. Mix Level Max with Polymer 550. Mix Desert Crete Polybase with clean fresh water.

7.3 First Base Application

After mixing, trowel Polybase or Level Max. Make certain that all holes in the lath are filled to the top of the lath. Allow to dry thoroughly before proceeding (2-3 hours, depending upon conditions). Polybase or Level Max cover approximately 45 to 50 square feet per 50 lb. bag at 1/8" thick.

7.4 Fiberglass Matting or Polyester Cloth

Lay fiberglass mat or polyester cloth onto the surface. Lap 2" over flashings and 1" at seams. Cut to fit around posts and drains.

7.5 Desert Brand Bonder 480 Application

Generously apply Bonder 480 by working into fiberglass matting. Bonder 480 is designed to penetrate and soak through the matting; thereby, adhering the matting to the surface. Bonder 480 is applied at 50 sq. ft. per gallon with fiberglass matting and 40 sq. ft. per gallon with polyester cloth. Allow 24 hours to dry thoroughly before proceeding.

7.6 Second Base Application

Trowel a second application of Polybase or Level Max over the dried fiberglass mat, or polyester cloth to a minimum thickness of 1/16". Allow to dry thoroughly before proceeding (2-3 hours, depending upon conditions).

7.7 Desert Crete Texture Application

Apply texture coat using Desert Crete Texture of PDF by using a pneumatic hopper gun equipped with 1/8" orifice and a medium setting in the circular spray plate. The recommended air pressure for application is between 30-40 psi. Allow 5-10 minutes before knocking down the splattered texture with a steel trowel. Allow 1-2 hours for drying before proceeding.

7.8 Sealer Final Coat Application

Following the appropriate directions apply either CMFPS, Master Seal WB, or Master Seal. These must be roller-applied in two coats allowing the recommended between coat dry times for the sealer used depending on the weather conditions including temperature and humidity.

The information is based on data obtained by our own research and is considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data, the results to be obtained from the use thereof, or that any such use will not infringe any patent. This information is furnished upon the condition that the person receiving it shall make his own tests to determine the suitability thereof for his particular purpose. Sales specifications, although current at time of publication, are subject to change due to process improvements. For latest product specifications, contact our nearest sales office.

8.0 PERFORMANCE DATA

Test	Specification	Result
2000 Hour Weatherometer	ASTM G-23	Passed
Accelerated Aging	ASTM D-756	Passed
Freeze Thaw Resistance	ASTM C-67	Passed
Abrasion Resistance	Per ICBO/ES Criteria	Passed
Chemical Resistance	ASTM D-2299	Passed
Concentrated Load	Per ICBO/ES Criteria	Passed
Water Percolation	Per ICBO/ES Criteria	Passed
Water Absorption	ASTM D-570	Passed
Wind Uplift	Per ICBO/ES Criteria	Passed
Fire Retardancy	Class A and One Hour	Passed

9.0 SYSTEM COMPONENT MIXING AND COVERAGE

Desert Crete Product	Liquid Mix	Spread Rate
Level Max 20/30 (50 lbs.)	Polymer 550 (1 to 1½ gal.)	≈ 50 sq.ft. at ⅛"
PolyBase (50 lbs.)	Water (1 gal.)	≈ 50 sq.ft. at ⅛"
Fiberglass Fabric Matting		¾ oz./sq.ft.
Bonder 480		≈ 50 sq.ft./gal.
Texture (50 lbs.)	Liquid Polymer (1¼ gal.)	≈ 200 sq.ft.
Pool Deck Finish (PDF) (50 lbs.)	Water (1 gal.)	≈ 200 sq.ft.
CMFPS (2 coats) Average sq.ft. per coat @ 1mil		Pigmented: ≈ 400-600 sq. ft Clear: ≈ 300-400 sq. ft
Master Seal WB (2 coats) Average sq.ft. per coat @ 1mil		Pigmented: ≈ 450-550 sq. ft Clear: ≈ 300-350 sq. ft
Master Seal (2 coats) Average sq.ft. per coat @ 1mil		Pigmented: ≈ 600-700 sq. ft Clear: ≈ 400-500 sq. ft

Spread rates are dependent on surface conditions and application techniques. Total weight of Desert Crete System over plywood is 3 lbs per sq. ft.

10.0 EVALUATIONS AND CERTIFICATIONS

IAPMO Uniform Evaluation Service <i>IAPMO is an ANSI accredited certification body that offers approved product certification to manufacturers of building products, materials and designs.</i>	Report number: ES-586 In accordance with ICC-ES AC39
Standard Test Methods for 1-Hour Fire Test of Building Construction and Materials <i>Desert Crete Decking System passes the ASTM E119 1-hour fire resistance test standard.</i>	ASTM E119 Equivalent – ANSI/UL 263 Equivalent – NFPA 251
Materials and Construction Methods for Exterior Wildfire Exposure <i>Desert Crete Decking System is constructed of ignition resistant materials that pass the performance requirements of SFM 12-7A-4, Parts A and B and SFM 12-7A-5 (test period of 30 minutes).</i>	SFM Standard 12-7A-4 (Parts A & B) SFM Standard 12-7A-5
Standard Test Methods for Fire Tests of Roof Coverings <i>Desert Crete Decking System is an ASTM E108 Class "A" fire rated decking system.</i>	ASTM E108 Equivalent – UL Standard 790 Equivalent – UBC 15-2
City of Los Angeles Research Report	Report 25262
Standard Test Method for Surface Burning Characteristics of Building Materials <i>Desert Brand Master Seal and CMFPS have an ASTM E84 Class "A" flame classification.</i>	ASTM E84

11.0 WARRANTY

The Desert Crete Decking System shall be guaranteed by a Manufacturer/Applicator Warranty issued by Hill Brothers Chemical Company for a period of five (5) years.

HILL BROTHERS *Chemical Co.*

800.994.8801

LOCATIONS:

City of Industry • San Jose, CA • Phoenix • Tucson, AZ • Salt Lake City, UT

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