



Application Specification

DECKLITE

Purpose and Scope

Instruction for the surface preparation and application of Dex-O-Tex Decklite system as an A-60 fire-rated decking and as an insulating deck underlayment for use under tile, carpet, terrazzo and comparable overlays. This material is manufactured to meet the requirements of Military Specification MIL-D-23134A (SH) and is U.S. Coast Guard Approved as an A-60 fire-rated deck under Certificate 164.006/64/0.

Thickness..... 3/8” to 2” (9.7mm to 50mm)

Note: Approved as meeting A-60 requirements in 1.375” minimum thickness including Magnabond 3.

Approximate Quantity of Materials Required

To Cover ONE HUNDRED SQ. FT (9.3 sq. Meters)

1/8” (3.18 mm) Thickness

Magnabond 3

Magnabond Paste, (5-gal. pails) 0.2 pails
Magnabond Powder, 1 bag, (40 lbs.)..... 1 bags

1” (2.5 cm) Thickness

Decklite Bodycoat

Decklite Powder, 1 bag, (40 lbs.)..... 8 bags
Magnesium Chloride Flakes 1 bg (50 lbs.)..... 4 bags

Required Equipment

- Baume Hydrometer
- Several empty open-head 55-gallon steel drums
- Wheelbarrow, shovel and mixing hoe
- Straight edge screeds
- Knee boards on pegs and clamp on pegged soles
- Full set of trowels and floats, including finishing trowels and tools
- Mechanical mixing equipment for size of the job

Surface Preparation

Prepare metal surfaces in accordance with SSPC SP-11 or SP-5 as required. Bare metal surfaces must be dry and cleaned of all paint, grease, rust and scale by chipping, power brushing or sandblasting. Protect the surface from corrosion by application of Navy Formula 150 primer or a coating that complies with MIL-PRF-23236 Type VI or Type VII prior to the application of The Decklite system. The use of metal clips is not required for application of Dex-O-Tex Decklite System.

STEP ONE – Application Primer

- A. Use an approved Navy Formula 150 Primer, MIL-DTL-24441 or MIL-PRF-23236 Type VI or Type VII coating:

Pre-mix and apply selected primer per the manufacturer’s application instructions onto the prepared metal surface. Allow the primer to thoroughly dry. Leave no bare spots.

STEP TWO – Application of Magnabond 3

- A. Mix together the following materials:

Magnabond 3 Paste 1 gal.
Magnabond 3 powder..... 1 bag (40 lbs.)

Blend the materials together thoroughly by Dex-O-Tex Drill Mixing. The above material will cover approximately 100 sq. ft. (9.3 m²) in a 1/16” (1.59 mm) thickness. Workability time is about one (1) hour. Apply the Magnabond 3 mix onto the deck in a troweled slurry application 1/16” (1.59mm) thick. Leave no bare spots.

- B. Allow Magnabond 3 to dry overnight, or to a point it is sufficiently dry to withstand foot traffic.



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STEP THREE—Application of Decklite

A. When the Magnabond 3 application has been allowed to dry overnight or when it is sufficiently dry to withstand foot traffic, the Decklite bodycoat should be applied. This Magnesium Chloride Cement composition is troweled on directly to the Magnabond using the normal technique.

B. **Preparation of Magnesium Chloride Solution:**
In a clean, open top 55-gallon steel drum half filled with clean water add four 50 lb. bags of magnesium chloride flakes. Stir thoroughly until all flakes are dissolved. Use a Baume Hydrometer to adjust the solution to 22° Baume, plus or minus 1/2°. If solution reads higher, water is added. This should make approximately 50 gallons of solution usually at a level of 6 inches from the top of the mixing drum (approximately 50 gal).

C. Using a suitable mixing container and equipment, mix enough Magnesium Chloride solution with one bag of Decklite Powder to obtain a trowelable mix. This normally is about 3 to 3.5 gallons of solution.

Caution: Solution must be 22° Baume, plus or minus 1/2°. Excess magnesium chloride in the solution will cause material to set too fast and prevent finish troweling. Stir solution periodically and test with a Baume Hydrometer before using; especially when allowed to stand over a long period of time.

D. Spread mix onto deck scratching well into the Magnabond 3 surface and darby off to the required thickness. The use of removable screed strips is recommended for this purpose. A one-bag mix should cover approximately 12 ½ square feet at a 1-inch thickness.

E. After about 40 minutes to an hour, Decklite will take an initial set, which must then be finish troweled to a smooth compact dense surface. At this stage, Decklite has reached a state where the

material is too stiff to be pushed with a darby, but can be moved with a trowel. Moderate finger or thumb pressure will indent the surface. Using a kneeling board with pegs turned down; the Decklite material is flat troweled to a smooth compact dense surface. All peg holes must be filled, not just closed at the top.

F. If the surface is too rough, a second flat troweling to obtain a smoother finish can be performed using kneeboards with the pegs turned up. Materials should be sufficiently set so as not to seriously dent surface. It is best to avoid the need for a second flat troweling by taking care with the first finished troweling operation.

G. Application to meet A-60 requirement is a minimum – 1 3/8” thickness.

H. Curing: Decklite is a very low-density material, which can retain the magnesium chloride solution water for a long period. Normal applications can require up to 14 days before installation of finish decking systems.

STEP FOUR - Preparation Before Application of Finished Floors

A. Allow the Decklite to dry at least 7-14 days depending on temperature and humidity. Trowel apply a thin application of fast setting underlayment over entire surface before installing vinyl tile, carpet or other soft sheet materials. Dex-O-Tex Quik-Set Underlayment, MIL-PRF-3135, Type II, Class 1, floors that are made of vinyl tile, carpet or other soft sheet materials. Dex-O-Tex Weatherseal XL is used to seal Decklite for this purpose.

B. For application of troweled resin decking systems over Decklite, consult Crossfield Products Corp.

GENERAL CAUTIONS:

1. Obtain, read and observe MSDS for the above products.



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2. Read and follow Crossfield products Corp. Specification for the application of all materials.
3. Use all recommended and required protection gear, clothing, gloves, eye protection and footwear.
4. Comply with all regulatory requirements with respect to work, material's handling and clean up.
5. Do not apply latex mastic flooring directly over aluminum surfaces. Consult Crossfield Products Corp.
6. Conduct a thorough inspection of the work area; sub floor condition and soundness prior to commencing work.
7. All materials must be kept and stored dry. Inspect bags for signs of damage or dampness.
8. Magnesium oxychloride cements are affected by surface and ambient temperatures. Hot and humid conditions will cause accelerated setting time.
9. Avoid exposure of the Chloride Solution to the heat of the sun in order to maintain generally consistent temperature with that of the mixing water used.
10. Air currents and drafts from open windows or doors may cause minor surface cracking.



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