

Product Description Sheet

A-81 Underlayment

Smoothing and Resurfacing

Compound for Concrete and Lath-Reinforced Plywood

1. PRODUCT DESCRIPTION A. COMPOSITION

A-81 Underlayment is a polymer modified pre-packaged cementitious patching and leveling compound for concrete or lath-reinforced plywood.

A-81 Underlayment can be applied to any thickness from near featheredge upwards. It can be used on interior or exterior surfaces, including those exposed to freeze thaw or constant water spillage.

Fast setting, A-81 Underlayment is pre-packaged for convenient unit mixing and is easy to apply. It dries to a charcoal gray color. Natural, cement-gray color is available on request. Typical set-up time at 75°F (24°C) is 6-8 hours for foot traffic and 18-24 hours for vehicular traffic.

B. TYPICAL USES

It is designed for use beneath Dex-O-Tex surfacing material or as a patching, smoothing and resurfacing material. A-81 can be used as a smoothing underlayment prior to placement of carpet, resilient or ceramic tiles, rubber, vinyl or wood flooring and resinous floors. It is totally VOC compliant and contains no organic solvents. It is non-toxic and has only a slight odor during placement and cure.

C. ADVANTAGES - LIMITATIONS ADVANTAGES:

- 1. Superior adhesion.
- 2. Low permeability, yet breathable.
- 3. Use interior-exterior.
- 4. Recommended for use with Dex-O-Tex floors.
- 5. Fast setting.
- 6. Excellent freeze-thaw resistance.
- 7. Unaffected by de-icing salts.
- 8. Similar expansion-contraction as concrete.
- Installed only by Professional Factory Trained Dex-O-Tex Contractors.

LIMITATIONS

- Minimum ambient and surface temperatures should be 45°F (7°C) at time of placement and cure. Do not allow product to freeze prior to cure.
- 2. If applied in direct hot sun or high winds, cover with damp burlap to minimize or prevent surface checking.
- A waterproofing and crack isolation membrane can be installed prior to system applications.
- 4. Moisture vapor emission rates (MVER) in excess of 6.0lbs/1000 sq/ft/per 24hr. period per ASTM F1869, or an rh in excess of 78% per ASTM F2170 may result in delamination, discoloration or improper curing without proper treatment prior to installation of the flooring system. Consult with Crossfield Products Corp. for specific recommendations.
- Vapor control primers, sloping, smoothing or leveling compounds, crack repair or isolation, waterproof membranes or other supplementary items may be required for proper installation at an additional cost. Consult with Crossfield Products Corp. for specific recommendations.

2. TYPICAL PHYSICAL PROPERTIES at 75°F (24°C)

A.	Compressive Strength ASTM C1094,140 psi
B.	Tensile Strength ASTM C307 800 psi
C.	Flexural Strength ASTM C5801,200 psi
D.	Hardness ASTM D2240, Shore D70-75
E.	Adhesion ASTM D4541>400 psi (100% failure in concrete)
F.	Indention MIL-D-3134, Para 4.7.4.2.1
G.	Adhesion MIL-D-3134, Para. 4.7.1.4305 psi (Shear from Steel Plate after 96 hours)
H.	Water Absorption MIL-D-3134 3.14%

3. OVERVIEW OF INSTALLATION STEPS

A. Concrete must be cleaned, sound and durable and free of all grease, paint or other foreign matter. Remove loose or spalled concrete. Vacuum surface or hose with high pressure water to remove excess dust.

Impact Resistance (Gardner Impact Tester).... No chipping,

cracking or delamination and not more than 0.014"

- **B.** Prepare plywood surfaces by removal of laitance, grease and foreign matter. Apply expanded wire lath (1.75# per yd², galvanized steel-type) per ASTM C847. Mechanically fasten lath with staples (no. 16 gauge steel, 1" wide crown and ½" leg length) in compliance with ASTM F1667.
- C. For application up to 1/2" (12.7mm) in thickness, mix together two gallons of A-81 Paste with three 50 lb. (22.67 kg) bag of A-81 Powder. Mix with drill mixer, plaster mixer, or mortar box and hoe. For thicker applications, see Coverage Rate (below), item B.
- D. Prime concrete surfaces with a liberal brush coat of A-81 Paste as provided. A-81 Underlayment must be applied over wet primecoat. Reapply prime coat if the first coat absorbs into concrete rapidly.
- **E.** Finish immediately after placing. Do not re-trowel once material begins to set up.

Coverage Rate

- A. Two gallons of paste and three bags of powder mix will cover about 60 sq/ft (5.5m²) in a 1/4" (6.35mm) thickness. In "skim coating" thickness to smooth off slightly rough or rain-marked concrete, two-gallons of paste and three bags of powder mix will cover about 120 sq/ft (16.5m²). Two gallons of paste to three bags of powder mixed produces about 1.2 cu/ft (.036 cu. Meters).
- **B.** For application in excess of 1/2" (12.7mm) in thickness, mix together standard unit described above and then add up to 30 lbs. (13.5 kg) of washed, dried and bagged #30 silica sand or mixture of silica sand and pea gravel 3/8" pea gravel. Add a small amount additional A-81 Paste as necessary to permit trowelability. If desired, spray apply a small amount of A-81 Paste on surface to lubricate for easy trowel compaction.
- C. Two gallons of A-81 Paste and three bags of A-81 Powder, plus 30 lbs. aggregate mix will cover about 36 sq. ft. (3.6 m²) in a 1/2" (12.7mm) thickness. The above mix produces about 2.1 cu/ft (.057m³).

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4. PRODUCT AVAILABILITY

Crossfield Products Corp. maintains offices and/or factories at all addresses listed below. Factory Trained Contractors are established in all major trading areas in the United States, Canada and various European, Latin American and Far East nations.

5. SKID RESISTANCE and CLEANABILITY

In general the more aggressive the finished surface the greater the coefficient of friction and corresponding skid resistance, the more difficult to clean. The smoother the finished texture the easier the surface is to clean, but there is a loss of skid resistant properties.

6. CLEANING

Cleaning and disinfecting compounds and cleaning techniques can affect the color, gloss, texture and performance of the system. As a precautionary step, Crossfield recommends that the end-user test their cleaning and disinfecting compounds on a sample or on a small, out of the way finished area, utilizing the intended cleaning technique prior to cleaning the entire surface area. If no deleterious effects are observed, the procedure can be continued. If the cleaning and disinfecting compounds or cleaning techniques damage the system, modification of the cleaning material or techniques will be required. Contact your Representative for additional information.

7. SPECIFICATION ASSISTANCE

Consult Crossfield Products Corp. for specification assistance, detailing, etc. This consultation is highly recommended prior to specification.

8. TESTING

The technical data contained herein is the result of tests made in Crossfield's laboratories or in independent laboratories using small scale equipment, following generally accepted trade practices. Although this information is believed to be true and accurate, the use of different equipment for testing under dissimilar conditions or the testing of samples produced under dissimilar conditions may develop substantially different results.

LIMITED WARRANTY

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.





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