



EMERYPLATE FF™

DS-175.4-0417

A product brand of LATICRETE International, Inc.



1. PRODUCT NAME

EMERYPLATE FF™

2. MANUFACTURER

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3. PRODUCT DESCRIPTION

EMERYPLATE FF is a high strength dry shake for industrial concrete floors requiring additional abrasion and chemical resistance. EMERYPLATE FF consists of 100% pure, scientifically graded polyhedral shaped isostructures of emery/corundum and aluminum oxide for hardness, as well as iron oxide for toughness. These unique aggregates establish covalent bonds in their crystalline structure to produce a Mohs hardness approaching that of diamonds.

Uses

Use for industrial floors in key areas subject to heavy traffic, such as: warehouse and distribution centers, high stack vehicular traffic routes, shipping and receiving areas, tractor and truck repair facilities; interior and exterior loading and unloading docks, where increased impact and abrasion protection are required.

Advantages

- Contains 100% natural, pure emery/corundum aggregates containing a minimum of 58% aluminum oxide and 25% ferric oxide
- Ability to be broadcast or spread onto newly placed, highly plastic concrete slabs to achieve a flat or super-flat floor
- Engineer-designed graded emery aggregate and proprietary ingredients allow EMERYPLATE FF to be finished more easily.
- "Rust-free" service for use on interior or exterior floors.
- EMERYPLATE FF outperforms the wear resistance of iron aggregate dry shakes.

- Produces a denser surface to resist penetration by grease, oil, and contaminants to reduce maintenance costs.

Suitable Substrates

- Freshly placed concrete

Packaging

55 lb (25 kg) bag

Approximate Yield

Heavy Duty: 1.0 lb-1.5 lb/ft² (4.9-7.3 kg/m²)

Shelf Life

EMERYPLATE FF bags are to be kept in dry storage to prevent water contamination. Shelf life is 1 year in unopened bags.

Limitations

- Unvented flue and exhaust gasses from heaters and equipment will cause a carbonated floor surface. This results in weak and potentially dusting surfaces. Proper ventilation must be provided.
- Job conditions that influence surface drying and setting times of concrete may affect the timing of the hardener application and finishing procedures.
- Do not add cement, sand, aggregate or admixtures. Follow ACI recommended practices.

Cautions

- Refer to Safety Data Sheet (SDS) before using
- Protect finished work from traffic until fully cured
- Contains portland cement
- May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- Do not take internally
- Avoid breathing dust. Wear a respirator in dusty areas.
- Keep out of reach of children

Mock-ups and field test areas are required in order to validate performance and appearance related characteristics (including but not limited to color, inherent surface variations, wear, anti-dusting, abrasion resistance, chemical resistance, stain resistance, coefficient of friction, etc.) to ensure system performance as specified for the intended use, and to determine approval of the decorative flooring system.

4. TECHNICAL DATA

Working Properties

Specifications are subject to change without notification. Technical data shown in product data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to critical job site factors. All recommendations, statements and technical data contained in this data sheet are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind. Satisfactory results depend upon many factors beyond the control of LATICRETE International, Inc. User shall rely on their own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from their direct use, indirect use or consequential to their use of the product. LATICRETE shall not be liable to the buyer or any third party for any injury, loss or damage directly or indirectly resulting from use or inability to use the product.

5. INSTALLATION

Pre-placement

Air entraining agents, chlorides, admixtures, aggregates, and mixing water that contain chlorides shall not be used in concrete that is to receive EMERYPLATE FF™. The concrete used in the floor should have a slump of 4-5" (100-125 mm) and the total air content must not exceed 3%. Stainless steel finishing tools and trowel blades are recommended to insure color integrity.

Method 1 (2/3 1/3 method):

The Standard ACI 302 Method can be used if the EMERYPLATE FF is to be placed by hand or using a material spreader. Screeding and fill floating (bull floating) shall take place before the emergence of bleed water. After excess bleed water has evaporated or been removed, leaving sufficient moisture at the surface to hydrate cement binders in the EMERYPLATE FF, evenly distribute approximately 2/3 of the hardener specified for the area. If the hardener sinks into the surface when being applied, the concrete is too plastic for product application.

When the EMERYPLATE FF darkens slightly from absorbed moisture, it should be floated, using hand wooden floats or power floats with float shoes. Do not use combination float and trowel blades. Care should be taken not to tear through the surface of the hardener to the underlying concrete. Do not apply more hardener until moisture from the underlying concrete has been worked completely through the hardener. Immediately apply the remaining 1/3 of the specified amount of hardener at right angles to the first application. The moisture from the underlying concrete must be completely worked through the hardener. If this does not occur, the floor surface may delaminate. Allow to darken from moisture and float as before. After the concrete has further stiffened, it should be machine or hand troweled to a blemish free finish. Care should be taken not to trowel-burn the surface.

Use only stainless steel finishing tools and trowel blades. Use E-CON™ to prevent rapid evaporation of water from the concrete surface prior to power troweling of the surface. If blisters form during the finishing operation they must be immediately ruptured before continuing the finishing operation. The primary cause of delamination is premature closing of the concrete slab. Premature closing is caused by the float or trowel blades being set at too great an angle with respect to the surface of the concrete slab. This can be prevented by holding the slab open and by delaying the final troweling as long as possible. Keep the angle of the blades of the finishing equipment as flat as possible during all stages of the finishing operation. L&M is not responsible for diluted or mottled color resulting from careless or improper shake application, finishing,

curing or failure to protect finished floor from damage by construction trades.

Method 2 (Super flat):

Screed concrete smoothly to avoid excess bull floating. Bull float only once or twice. Excessive floating will close surface, and draw too much water to the surface. This will make the application of EMERYPLATE FF shake-on hardener more difficult. At this time, uniformly apply EMERYPLATE FF. Apply total lbs./square foot required. Allow moisture from concrete to "wick" into the shake-on material. Begin using a magnesium float on the edges. Once the concrete is walkable and footprints leave no more than 1/8" (3 mm) depression, a trowel machine with float blades can be used to finish the surface. Combination blades are not allowed. Finish concrete to specification. Use E-CON to prevent rapid evaporation of water from the concrete surface prior to power troweling of the surface.

Curing

Apply non-yellowing LUMISEAL WB, protective membrane, in strict accordance with the label directions after final troweling and surface water glaze has disappeared. In areas where subsequent treatments, such as SEAL HARD, are scheduled, consult your local L&M representative for specific curing recommendations. Do not wet cure EMERYPLATE FF by ponding water for the first 24 hours or by covering with plastic.

6. AVAILABILITY AND COST

Availability

L&M™ and LATICRETE® materials are available worldwide.

For Distributor Information, Call:

Toll Free: 1.800.243.4788

Telephone: +1.203.393.0010

For on-line distributor information, visit LATICRETE at www.lmcc.com.

Cost

Contact a LATICRETE Distributor in your area.

7. SHORT SPEC

033000: Emery Aggregate Reinforced Concrete Floor. Class 5 and 6 floors. 100% natural emery aggregates, minimum 58% aluminum oxide and 24% ferric oxide. Ready-mixed with Portland cement. Application 1.5 lbs/sq.ft. (7 kg/m²). Natural (or color selected by designer)

8. WARRANTY

See 10. FILING SYSTEM:

DS 230.13: LATICRETE Product Warranty

9. MAINTENANCE

LATICRETE and LATAPOXY® grouts require routine cleaning with a neutral pH soap and water. All other LATICRETE and LATAPOXY materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

10. TECHNICAL SERVICES

Technical Assistance

Information is available by calling the LATICRETE Technical Service Hotline:

Toll Free: 1.800.243.4788, ext. 235
Telephone: +1.203.393.0010, ext. 235
Fax: +1.203.393.1948

Technical and Safety Literature

To acquire technical and safety literature, please visit our website at www.laticrete.com.

11. FILING SYSTEM

Additional product information is available on our website at www.laticrete.com. The following is a list of related documents:

DS 230.13: LATICRETE® Product Warranty
DS 172.9: E-CON™
DS 174.6: SEAL HARD®
DS 172.8: LUMISEAL WB