Master Format #: 03 35 16

DIAMOND-PLATE

NON-OXIDIZING, HEAVY DUTY, METALLIC FLOOR HARDENER



PACKAGING

50 lb (22.7 kg) bag Code: 063E 50

APPROXIMATE COVERAGE

DIAMOND-PLATE may be applied at rates from 1.0 to 3.0 lb/ft² (4.9 to 14.6 kg/m²). Greater application rates yield better total abrasion resistance, and may be used with special considerations. Contact your Euclid Chemical Company representative for recommended procedures.

CLEAN UP

Clean tools and equipment with water before the material hardens.

SHELF LIFE

2 years in original, unopened package

SPECIFICATIONS AND COMPLIANCES

• Canadian Food Inspection Agency compliant

DESCRIPTION

DIAMOND-PLATE is a metallic, dry shake floor hardener with graded, non-oxidizing metallic aggregate in a high strength cementitious binder. Designed to be incorporated into fresh concrete slabs, DIAMOND-PLATE provides a dense, tough surface capable of withstanding the abrasion and impact loading seen by floor slabs of numerous industrial and manufacturing facilities. DIAMOND-PLATE has been specially formulated with a non-rusting aggregate for increased abrasion resistance in areas subject to frequent moisture or water exposure. DIAMOND-PLATE can also be mixed in a mortar consistency and placed along joints to provide edge reinforcement.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Provides a high strength wearing surface in areas subject to constant or frequently wet conditions without oxidizing
- Metallic aggregate is free of rust, oil, or other contaminants
- Virtually non-dusting in service, easy to clean and maintain
- Can be applied at coverage rates up to 3.0 lb/ft² (14.6 kg/m²)
- Available in 10 standard colors including a natural cement color

PRIMARY APPLICATIONS

- Industrial floors
- Loading docks
- Warehouses
- Main, high traffic aisleways
- Processing plants
- Passenger and freight terminals
- Towveyors
- Distribution centers
- Joint shoulder reinforcement

APPEARANCE

DIAMOND-PLATE is a free flowing powder as packaged. Standard colors are Natural (cement-colored), Light Gray, and Light Reflective. DIAMOND-PLATE is also available made-to-order in Battleship Gray, Brown, Diamond Green, French Gray, Tan, Terra Cotta, and Tile Red. The final finish can be any texture normally achieved with concrete and should be specified by the owner. In addition, the joints of the newly installed DIAMOND-PLATE floor can be filled with a matching color available in EUCO QWIKJOINT UVR polyurea joint filler.

TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Values
ASTM C109	Compressive Strength	2 in. (50 mm) cubes, mixed at 4.50 lb (2.04 kg) of water per 50 lb (22.7 kg) bag 7 days11,000 psi (75.9 MPa) 28 days13,000 psi (89.7 MPa)
ASTM C779	Relative Abrasion Resistance	Abrasion @ 30 min. Abrasion @ 60 min 7 days 0.013" (0.33 mm) 0.038" (0.97 mm) 28 days 0.012" (0.30 mm) 0.034" (0.86 mm)

DIRECTIONS FOR USE

The contractor and engineer are encouraged to consult and review the Euclid Chemical bulletin "Dry Shake Floor Hardeners - Application Instructions". The document offers instructions detailing the general installation of Euclid Chemical manufactured dry shake floor hardeners. Note: If the contractor is not familiar with the standard application techniques of a dry shake floor hardener, a pre-job meeting is suggested to review the project concrete mix design as well as placement and curing details unique to the particular job. Contact your local Euclid Chemical Company representative for additional information.

Concrete Mix Design Note: Concrete containing calcium chloride or admixtures with > 0.05% chloride ions should not be treated with metallic dry shakes. Air content must be below 3% for all dry shakes. Cement should be the only cementitious material present in the mix. The use of supplementary cementitious matierials, such as fly ash, slag, and microsilica can cause delayed bleeding and are not recommended for use with a dry shake hardener.

Armored Joints: DIAMOND-PLATE may also be used as a mortar in constructing armored floor joints.

Application Tips: Colored (pigmented) dry shakes require special attention for a uniform color. Care should be taken with regard to the following; delay application of the shake as long as possible to get the maximum color saturation at the surface of the slab, apply the shake as evenly as possible and in two applications for maximum uniformity, do not burnish trowel the floor. Best appearance is achieved by hand trowelling the final finish.

Curing and Sealing: After finishing operations are complete and the surface will not be marred by foot traffic, apply a Euclid Chemical curing compound or cure and seal according to product instructions. To produce an exceptionally durable and dustproof surface, cure with a dissipating curing compound such as KUREZ DR VOX, then densify with EUCO DIAMOND HARD.

PRECAUTIONS/LIMITATIONS

- The use of supplementary cementitious materials are not recommended for use with a dry shake hardener
- Proper curing and sealing is required.
- Do not cure this product with UltraSil 7 or UltraSil DC9
- Curing with a sheet membrane (poly or burlene) is acceptable, however potential mottling problems may occur.
- Sufficient labor is required to produce consistent results on large placements.
- **Important:** Air-entraining admixtures may complicate finishing operations and cause blistering. Contact The Euclid Chemical Company if applied over air entrained concrete with more than 3% total air content.
- Not recommended for floors subjected to acids or other corrosive chemicals that may attack a cement based material.
- Store product in a dry place.
- When necessary, follow the recommendations in ACI 305R "Guide to Hot Weather Concreting" or ACI 306R "Guide to Cold Weather Concreting".
- In all cases, consult the Safety Data Sheet before use.

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