PENETRATING SEALERS & LIQUID DENSIFIERS

Master Format #: 03 35 00

EUCO DIAMOND HARD

LIQUID DENSIFIER AND SEALER FOR CONCRETE

EUCLID CHEMICAL

PACKAGING

5 gal (18.9 L) pail
Code: 059H 05
55 gal (208 L) drum
Code: 059H 55
275 gal (1041 L) tote
Code: 059H 27

APPROXIMATE COVERAGE

One gallon of EUCO DIAMOND HARD will cover 200 to 250 ft²/gal (4.9 to 6.1 m²/L) of steel troweled concrete depending on the surface porosity and texture.

CLEAN UP

Clean brooms, tools and all equipment and sprayers with clean water immediately after use. The residue from application and clean up process is non-toxic.

SHELF LIFE

2 years in original, unopened package

SPECIFICATIONS AND COMPLIANCES

- USGBC LEED Version 4, BD&C, ID&C
- ANSI/GBI 01, Green Building Assessment Protocol
- The WELL Building Standard
- Canadian Food Inspection Agency

DESCRIPTION

EUCO DIAMOND HARD is a unique blend of silicate and siliconate polymers that penetrate concrete surfaces and chemically react to provide an increase in surface density, durability, and abrasion resistance. Concrete treated with EUCO DIAMOND HARD is dust-proofed, resists tire marks, and is easier to maintain. Over time, EUCO DIAMOND HARD provides an attractive, slip resistant sheen to concrete that never peels, fades, or wears away.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Reduces porosity and increases durability of the concrete surface
- Complies with VOC regulations across North America
- Treated surfaces have increased liquid repellency
- Equipment can be cleaned with water
- Minimizes tire marks and enables them to be more easily removed
- Can be applied to new or existing concrete

PRIMARY APPLICATIONS

- Interior or exterior
- Warehouse floors
- Commercial and retail floors
- Manufacturing plants
- Distribution centers
- Diamond polishing concrete

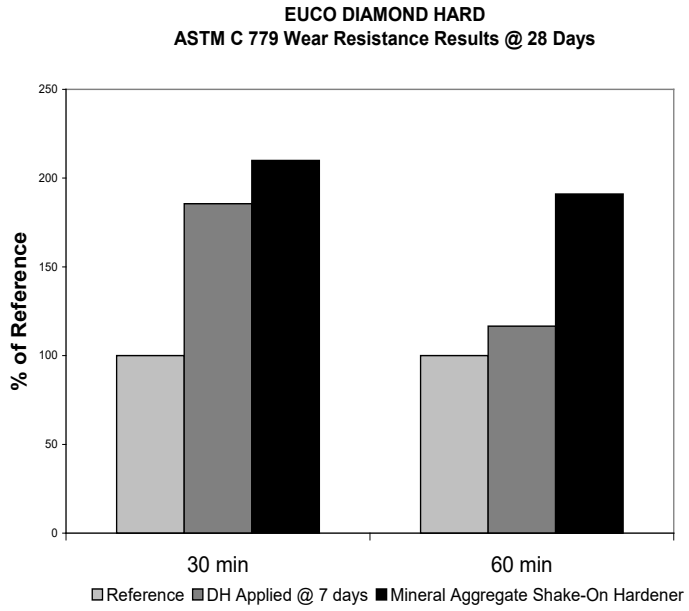
APPEARANCE

EUCO DIAMOND HARD is a clear, water-based liquid that cures without a significant change in concrete appearance. During placement, the color of the concrete may initially appear darker but will lighten upon drying. Tightly troweled concrete surfaces treated with EUCO DIAMOND HARD will achieve a glossy sheen over time with traffic and regular cleaning or buffing. If immediate gloss is desired, the floor may be dry buffed with a lambswool buffing pad after the sealer has cured for a minimum of 24 hours.

TECHNICAL INFORMATION

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

Test Method	Test Property	Values
Calculated per SCAQMD rule 1113	VOC Content	≤ 5 g/L
-	Drying Time at 70 °F (21 °C)	Light Foot Traffic: 4 to 6 hours Wheel Traffic: 24 hours
ASTM F609	Coefficient of Friction	Untreated Control (Wet/Dry): 0.78/0.77 Euco Diamond Hard (Wet/Dry): 0.74/0.77
RILEM Method 11.4	Liquid Repellency - Water absorbed in 24 hours	Untreated concrete: 5 mL Euco Diamond Hard treated concrete: 1 mL
-	Chemical Resistance	Find the chemical resistance chart on euclidchemical.com
ASTM C779	Durability Factor	See table below



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DIRECTIONS FOR USE

EUCO DIAMOND HARD should be used directly from the container and requires no pre-mixing or blending.

Surface Preparation (Newly Placed Concrete): Cure the concrete by a wet or sheet cure method in accordance with ASTM C171, or with a curing compound such as KUREZ DR VOX. New concrete should cure seven days or longer before application of EUCO DIAMOND HARD. For fast track projects, the wet cure time may be reduced at the discretion of the project engineer. Remove the curing method, including any laitance formed on the surface, and allow concrete to air dry a minimum of 24 hours prior to application of EUCO DIAMOND HARD. **If a curing compound is used, it must be fully removed before applying EUCO DIAMOND HARD.** Failure to follow these preparation steps will prevent full penetration of EUCO DIAMOND HARD, drastically reducing its effectiveness.

Surface Preparation (Existing/Older Concrete): Concrete that is already in service or older floors must be clean and free of any materials that could prevent penetration of EUCO DIAMOND HARD, such as curing compounds or cure & seals, paints, coatings, dirt/oil, waxes, etc. If necessary, use EUCO CLEAN & STRIP to remove these contaminants before applying EUCO DIAMOND HARD.

Application (New or Old Concrete): Air temperature during application must be between 35 and 100 °F (2 and 38 °C). At temperatures below 50 °F (10 °C), the reaction and "gelling" process of EUCO DIAMOND HARD is slower, so the concrete will need to remain wet with EUCO DIAMOND HARD for a longer period of time. In hot or windy conditions, the reaction may take less than the normal 30 to 60 minute period. Concrete should be pre-dampened in hot weather; apply EUCO DIAMOND HARD when all standing water has disappeared. Apply the EUCO DIAMOND HARD to the concrete surface by low pressure sprayer or by pouring directly onto the surface and distributing evenly by broom or squeegee. With soft bristle hand brooms or brushes on an auto-scrubber, work the EUCO DIAMOND HARD around the area to be treated and into the surface. The concrete must be kept wet with EUCO DIAMOND HARD for at least 30 minutes - add additional EUCO DIAMOND HARD if necessary to maintain a wet surface. As the EUCO DIAMOND HARD begins to thicken and gel underfoot, lightly spray the area with clean water to break up the thickened EUCO DIAMOND HARD and move the excess material on to the adjacent floor area next to be treated. Do not track EUCO DIAMOND HARD onto untreated concrete, as permanent footprints or tire marks can result. Continue the application process until the entire floor has been treated. When finished, completely remove all excess EUCO DIAMOND HARD from the surface. **If excess EUCO DIAMOND HARD is allowed to dry on the concrete surface, a white residue will form that can only be removed by mechanical means such as grinding or sanding. Prevent this by completely removing all excess EUCO DIAMOND HARD from the surface when application is complete.**

Floor Joints: If the floor joints are to be filled after EUCO DIAMOND HARD has been applied, they must be thoroughly cleaned before installation of joint filler. Cleaning joints by circular concrete saw or a drill equipped with a wire wheel is recommended.

Maintenance: See the "Euco Diamond Hard Maintenance Guide" for recommended maintenance procedures.

PRECAUTIONS/LIMITATIONS

- Protect containers of EUCO DIAMOND HARD from freezing. In the event of freezing, thaw and stir or agitate before use.
- EUCO DIAMOND HARD is not recommended for use as a curing compound. It does not meet the requirements of ASTM C309 or ASTM C1315.
- Protect freshly applied EUCO DIAMOND HARD from rain for at least 12 hours after application
- Although EUCO DIAMOND HARD has successfully demonstrated resistance to common chemicals in laboratory testing, the in-place performance will depend on surface porosity, application rate, chemical exposure and dwell time. If chemical resistance is of concern, a concrete sample treated with EUCO DIAMOND HARD should be constructed on the jobsite and subjected to the anticipated chemical exposure to verify in-place performance. This performance should be verified and approved by the owner prior to installation.
- Protect all adjacent surfaces including metals, glass, wood, paint or brick from contact with EUCO DIAMOND HARD. If accidentally over sprayed, wash adjacent surfaces with potable water immediately.
- Waste resulting from EUCO DIAMOND HARD application must be disposed of in accordance with local regulations.
- In all cases, consult the Safety Data Sheet before use.

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