

EUCO DIAMOND HARD

Liquid densifier and sealer

May 2024

DESCRIPTION:

Diamond Hard sealer is a proprietary blend of silicate polymers which penetrate concrete surfaces providing an increase in abrasion resistance and a reduction in the surface absorption of liquids. The product reacts with elements in the concrete surface to impart a low sheen which enhances the appearance of the concrete surface. Diamond Hard is water based and V.O.C. compliant. It generally dries tack free in 2 to 4 hours at 21°C at 50% RH.

FIELD OF APPLICATION:

- Interior or exterior
- Warehouse floors
- Commercial floors
- Manufacturing plants
- Residential garages and basements
- Distribution centers

FEATURES/BENEFITS:

- Reduces porosity and increases hardness of the concrete surface
- V.O.C. compliant
- Resists penetration of oil and many chemicals
- Minimises tire marks and enables them to be more easily removed
- Equipment can be cleaned with water
- Can be applied to fresh, new or existing concrete
- Low sheen enhances the appearance of concrete surface
- Will not blush
- Compatible with bond breakers for tilt-up projects

PACKAGING:

Diamond Hard is packaged in 208 litre drums and 20 litre pails.

TECHNICAL DATA:

V.O.C.	0 g/l
Typical drying time	
Light foot traffic	4-6 hours
Wheel traffic	24 hours
Shelf life	2 years in original, unopened package

This product meets V.O.C contents in accordance with EPA 40 CFR Part 59 Table I Subpart D for Concrete Protective Coatings with a maximum V.O.C content of 400 g/L.

APPEARANCE:

Diamond Hard is a clear liquid which dries transparent. After placing, the colour of the concrete may initially appear darker than the surrounding concrete. As the sealer cures and dries out, the treated concrete will gradually increase in tightness with a subsequent increase in gloss. If additional immediate gloss is desired, the floor may be dry buffed with a buffing pad after the sealer has cured for 24 hours.

COVERAGE:

One litre of Diamond Hard will cover 4-5 m² of steel troweled surface depending on the porosity of that surface. When Diamond Hard is used as a final treatment on a metallic or mineral aggregate hardened surface (ACI302, Class 6) the coverage may be greater than indicated above. For other concrete floors (ACI302, Class 1-5) Coverage is still dependent upon the final surface texture.

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DIRECTIONS FOR USE:

Mixing:

Diamond Hard should be used directly from the container and requires no pre-mixing or blending.

NEW CONCRETE:

Surface Preparation

Cure the concrete by a wet or sheet cure method in accordance with ASTM C-171, or with Kurezdrvox from The Euclid Chemical Company. For coloured (dry shake) floors, cure with Burlene or other suitable non-marking sheet cure. New concrete should cure seven (7) days or longer. For fast track projects, reduce the wet cure time. Allow concrete to air dry a minimum of 24 hours prior to application of Diamond Hard. Insufficient drying of the concrete will prevent full penetration of Diamond Hard, reducing its effectiveness.

Application

Apply the Diamond Hard by broom or low pressure sprayer. Keep the entire surface of the concrete wet with Diamond Hard for a minimum of 30 minutes. The material may be broomed around on the surface to ensure good coverage. As the Diamond Hard begins to thicken and gel (but no more than 60 minutes after the initial application) broom and squeegee the excess material on to the adjacent floor area next to be treated. If necessary, lightly sprinkle water on the surface to aid in removal. Continue until the entire floor has been treated. Vacuum or squeegee to remove any excess material.

When the owner is ready to take occupancy of the building, but before equipment is placed on the floor, an additional application of Diamond Hard may be applied to increase the chemical and wear resistance of the concrete surface.

Soft-Cut Saw Joints

If the floor joints will be cut using the Soft Cut saw method, treat the floor surface with Diamond Hard (including flooding the joints) after the saw cutting operation. The applicator should be sure the excess cement dust remaining after saw cutting has been removed from the concrete surface prior to application of Diamond Hard. After the slab has cured the appropriate number of days, the joints may then be cleaned a final time and the joint filler applied.

EXISTING, CURED CONCRETE:

Surface Preparation

The concrete surface must be clean, dry and free of any contaminant or coating.

Application

For best results Diamond Hard should be applied and scrubbed in using mechanical scrubbers. Select the section of floor for the initial application. Apply Diamond Hard to the concrete surface in a continuous operation at a rate of approximately 4.9 m²/litre on steel trowelled surfaces.

The liquid should be scrubbed into the surface with a mechanical scrubber. In smaller areas and along the perimeter of the slab, a bristle broom may be used. The scrubbing action assists Diamond Hard in penetrating the surface. Keep the surface wet with Diamond Hard at all times during the application process. When the product thickens (but no more than 60 minutes after initial application) the surface should then be squeegeed on to the adjacent floor area next to be treated. Continue until the entire floor area has been treated. Vacuum to remove all excess liquid. The surface may be flushed with water to aid in removal of the excess material.

CLEAN UP:

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

PRECAUTIONS/LIMITATIONS:

- Allow the product to dry a minimum of 4-6 hours before exposure to traffic.
- Protect Diamond Hard from freezing. In the event of freezing, thaw and stir or agitate before using.
- Do not leave any Diamond Hard residue on the treated concrete surface. Excess hardened material must be removed with a grinder.
- Diamond Hard is not recommended for use as a curing compound. It does not meet the requirements of ASTM C-309 or ASTM C-1315.
- Protect metals, glass, wood, paint or brick from contact with Diamond Hard. If accidentally over-sprayed, wash surface with potable water immediately.

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HEALTH AND SAFETY:

For more information, please refer to the relevant Safety Data Sheet.

WARNINGS AND BANS:

Is the building product/building product line subject to warning or ban under section 26 of the Building Act 2004?	No
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MANUFACTURERS CONTACT DETAILS:

Manufacture location	USA
Legal and trading name of manufacturer	Euclid Chemical Company
Manufacturer address for service	19215 Redwood Road, Cleveland, OH, 44110 USA
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