

PRODUCT DESCRIPTION

Diamond Hard is a unique blend of silicate and silicate polymers that penetrate into the concrete surfaces and chemically react to provide an increase in the surface density of the concrete. Tremco's Diamond Hard also increase the concrete's durability, abrasion resistance and longevity by reducing water's ability to penetrate the concrete surface and cause damage to the concrete.

Diamond Hard is a dust-proof sealer that will help the concrete resist tyre marks and make the concrete surface easier to clean. As it is not a film forming coating/membrane, it will not impact or reduce the concrete's slip rating.

USAGE/PURPOSE

Diamond Hard is used as a dust-proof, densifier and sealer in the following typical applications:

- Warehouse Floors
- Manufacturing Plant Floors
- Distribution Centres
- Car Parks
- Commercial & Retail Floors

FEATURES AND BENEFITS

- Green Star Compliant
- Minimises tyre marks
- Reduces concrete porosity to extend concrete life
- Minimal equipment needed allows for a quick and easy installation
- No priming necessary allow for a fast installation

PACKAGING

- 20L Drum
- 200L Drum

COLOUR

Clear Satin

STORAGE

Store in original, undamaged packaging in a clean, dry, protected location.

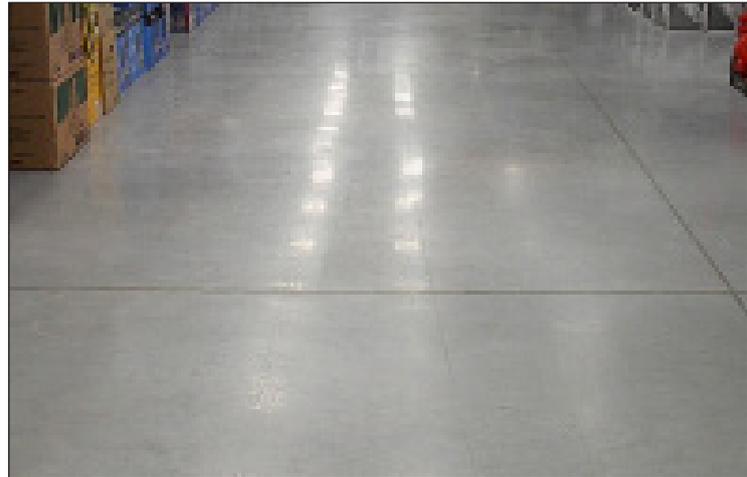
LIMITATIONS

- Concrete should be pre-dampened in hot weather.
- The concrete must be kept wet with Diamond Hard for at least 30 minutes. If the Diamond Hard dries too fast, it will leave a white residue that needs to be mechanically removed.
- Do not track Diamond Hard onto untreated concrete, as permanent footprints or tire marks can result.

SPECIFICATION CLAUSE

The dust-proofing sealer is specified as Diamond Hard, a hybrid silicate sealer, formulated from a unique blend of silicate and silicate polymers.

TYPICAL PHYSICAL PROPERTIES		
PROPERTY	TEST METHOD	Diamond Hard
Type		Clear Satin Silicate Blend
Drying Time (@25°C, 50% RH)		4-6 Hours
Return to Traffic		24 Hours
Reduction of Water Penetration	RILEM Method 11.4	500%



SHELF LIFE

2 years in original, unopened package

SURFACE PREPARATION

1. Concrete shall be water-cured and attain a 20 MPa minimum compressive strength.
2. Concrete shall be free of any laitance which may inhibit sufficient adhesion. Removal of laitance can be achieved through a variety of physical abrasion methods, such as, shot blasting (preferred method) sandblasting, grinding.
3. Concrete surface shall be properly cleaned so that the surface to receive the Diamond Hard is free of mould, paint, sealers, coatings, curing agents, loose particles, and other contamination or foreign matter that may interfere with the adhesion.
4. Spalled areas shall be cleaned free of loose contaminants prior to repair. Because jobsite conditions vary, it is recommended that you contact your local Tremco Representative. Depending on the substrate and depth of the spalled areas, a TREMcrite repair product will be recommended as the best method of repair.
5. In the event of exposed reinforcing steel, it is recommended that the structural engineer of record be contacted for investigation and for best repair method.
6. Surfaces shall be made free of defects, as they will telegraph and show through the Diamond Hard.
7. All drains shall be cleaned and operative. Drains shall be recessed lower than the deck surface. The surface shall be sloped to drain to provide positive drainage (1:100) as per AS4654.2. Drains should be detailed as instructed below:
 - Cut a 6 mm wide x 12 mm deep keyway into the concrete surface at any point where the coating will have an exposed terminating edge -- that is, any point where the coating will end in an open area subject to traffic, for example, at the end of a ramp, around drains and alongside expansion joints.
8. If the project is a restoration deck, old sealant and membrane material shall be removed. The joint interface will require a thorough wire brushing, grinding, sandblasting, solvent washing and/or primer.

JOBSITE MATERIALS

Recommended materials and their uses are as follows:

1. **Dymonic 100:** A one-part, exceptional movement (+100/-50%), moisture-curing, gun grade polyurethane sealant for use in precast, masonry, expansion joints, control joints and for use in forming cant/fillet bead.
2. **TREMflex 50:** A one-part, high movement (+/-50%) moisture-curing, gun grade polyurethane sealant for use in precast, masonry, control joints and for use in forming cant/fillet bead.

USAGE

The following is a theoretical guide to estimate material usage. This does not account for material wastage on-site or reduced coverage due to substrate porosity/aggregate profile:

Substrates	Wet mm	m ² /L	m ² / 200L
Concrete	0.2	5.0	1000

METHOD OF APPLICATION

- Substrate temperature during application must be between 10°C and 38°C.
 - Note: at temperatures below 10°C, the reaction and "gelling" process of Diamond Hard is significantly slower, so the concrete will need to remain wet with Diamond Hard for a significantly longer period of time.
 - Note: 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 Diamond Hard when all ponding water has evaporated.
- Apply the 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 brooms or brushes on an auto-scrubber, work the Diamond Hard around the area to be treated and into the surface.
- The concrete must be kept wet with Diamond Hard for at least 30 minutes.
 - If necessary, add additional Diamond Hard to maintain a wet surface.
- Continue the application process until the entire floor has been treated. When finished, completely remove all excess Diamond Hard from the surface.
 - If excess 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.

CLEAN UP

- ☐ Clean all equipment with clean water on completion of application and mixing.

HEALTH & SAFETY PRECAUTIONS

The Safety Data Sheet (SDS) must be read and understood prior to use.

TECHNICAL SERVICE

Tremco CPG Australia Pty Ltd has a team of Representatives who provide assistance in the selection and specification of products. For more detailed information or service and advice, call Customer Service on (02) 9638 2755 or fax (02) 9638 2955.

GUARANTEE/WARRANTY

TREMCO products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with TREMCO written instructions and (b) in any application recommended by TREMCO, but which is proved to be defective, will be replaced free of charge. Any information provided by TREMCO in this document in relation to TREMCO's goods or their use is given in good faith and is believed by TREMCO to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. TREMCO makes no representation, guarantee or warranty relating to the accuracy or reliability of the information and assumes no obligation or liability in connection with the information. To the extent permitted by law, all warranties, expressed or implied are excluded.

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