

Standard Specification for the application of Euco Diamond Hard to New Concrete Flooring

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1.0 PREAMBLE

This specification is for the application of **Euco Diamond Hard**. **Diamond Hard** is a liquid densifier and sealer for new concrete slabs. **Diamond Hard** is a proprietary blend of silicate polymers which penetrate concrete surfaces providing an increase in concrete hardness, 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 a clear liquid which dries transparent. After placing the colour of the concrete may initially appear darker than the surrounding concrete. As **Diamond Hard** 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.

2.0 SURFACE PREPARATION / PRETREATMENT

2.1 General - Responsibility:

Unless expressly agreed otherwise at time of contract pricing, all work in this section shall be the responsibility of the Main Contractor, whether carried out by his own staff, other sub-trades or the Specialist Finishes Sub-Contractor. In the latter case, such preparatory work shall be priced separately from work defined in Sections 3.0-5.0 inclusive.

2.2 New Concrete:

- .1 Shall be finished to NZS3114 U3 standard and shall be laid true to falls as required.
- .2 Shall be cured at least 14 days at the time of application, unless a two stage **Diamond Hard** application is stipulated.
- .3 Shall have all designed expansion/construction joints correctly formed or cut.
- .4 Shall have no foreign substance or other coating present on the surface, which would impede the ability of the **Diamond Hard** to penetrate.



.5 Ensure no standing water is left on the surface as this will not allow the product to fully penetrate and may leave a crystallised residue on the surface which can only be removed by severe cleaning.

3.0 APPLICATION OF EUCO DIAMOND HARD

3.1 Diamond Hard Application: New Concrete

The material shall be applied in one (1) coat as follows:

Apply the **Diamond Hard** by broom or squeegee. Keep the entire surface of the concrete wet with diamond hard for a minimum of 30 minutes. The material should be broomed or squeegeed around the surface to ensure good coverage. As the **Diamond Hard** begins to thicken and gel (but no more than 60 minutes after initial application) broom and squeegee all excess material on to the adjacent floor area next to be treated. If necessary sprinkle a little water onto the surface to aid in removal. Continue this process until the whole floor has been treated.

Ensure that during the initial flooding that the applicator watches for “dry” spots as this would indicate complete penetration and more product is required. During application it is necessary to keep the material moving and avoid ponding the material in one place.

Spreading rate shall be a minimum of 4.5 sqm per litre. Porous surfaces may take up more

4.0 GENERAL NOTES

4.1 Colour:

Diamond Hard is an opaque white material similar in consistency to milk. On curing the product leaves no visible film

4.2 Sealing of Expansion Joints:

Joints may be filled at least 24 hours after the Diamond Hard has been applied or at the appropriate time after curing of the slab.



5.0 MAIN POINTS TO REMEMBER

1. Keep the surface “wet” for at least 30 minutes
2. Watch for “dry” spots, this would indicate porosity in the substrate and more **Diamond Hard** is required.
3. Watch for “pooling”; keep the product evenly “wet” across the surface to be treated
4. Do not leave **Diamond Hard** residue on the treated concrete as it is extremely difficult to remove.
5. There must be no residual water left on the surface prior to application as this will only serve to dilute the material.
6. “Gelling” may occur sooner rather than later if the conditions prove to be hot. The reverse is true if conditions are cold. Work times may need to be adjusted accordingly.
7. Never apply in the heat of the day, or in direct sunlight.

6.0 MAINTENANCE

Diamond Hard reacts with components in the concrete and actually becomes part of the floor itself. The surface requires no special cleaning procedures beyond that typically recommended for a concrete floor. Periodic cleaning with standard detergents and regular floor maintenance can be followed.

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