

## GLAZE SEALER

**Glaze Sealer is a highly durable ‘wet-look’ sealer, ideal for external concrete surfaces including paths and driveways.**

### 1. Description

Glaze Sealer is a hard-wearing sealer that can be applied to most external concrete surfaces. Glaze Sealer can withstand vehicular traffic, making it an ideal driveway sealer. Glaze Sealer gives concrete a ‘wet-look’ finish, enhancing the concrete appearance. Glaze sealer can be used on exposed aggregate concrete. Sealing exterior concrete surfaces with Glaze Sealer will help protect the concrete from staining and marking, making the concrete easy to clean and maintain.

*Applications:*

- Exterior residential concrete floors including driveways and paths.

*Characteristics:*

- Gives the concrete a ‘wet-look’ finish enhancing the concrete appearance.
- Designed and manufactured in New Zealand.
- Can withstand vehicular traffic
- Can be used on exposed aggregate concrete.
- Easy to apply, and quick drying.

*Limitations:*

- Not for use on commercial floors.
- External concrete surfaces must be appropriately textured to prevent Glaze Sealer making the surface slippery.
- Sealer will not adhere to smooth stone surfaces – test areas must be conducted on ground or exposed aggregate to ensure adhesion, particularly on trafficable surfaces.
- Cannot be used as a waterproofing agent.
- Does not act as a filler – cracks and defects must be repaired prior to application.
- Glaze Sealer is a coating, so whilst durable, will wear over time.

This product guide covers the preparation, application, and maintenance of Glaze Sealer - if there is any question as to the suitability or application of this product please contact Holcim New Zealand Ltd prior to use. Refer to the SDS for full Health and Safety information.

### 2. Precautions

- Do not seal any concrete under 28 days old.
- Do not apply to highly burnished or very ‘tight’ floors.
- Do not apply to concrete surfaces that have been treated with concrete densifiers/hardeners.
- Do not apply to concrete surfaces that are not *completely* dry, not just surface dry.
- Do not apply to any surface that has been previously treated with another product i.e. other sealers, curing compounds, etc.
- Do not seal concrete if the concrete temperature (not atmospheric) is below 12°C or above 30°C.
- Do not apply in the middle (hottest part) of the day or in high humidity.
- Do not use as a filler – any cracks, pitting or pinholes must be treated prior to application.
- Clean up any spills immediately to avoid staining.

### 3. Test Area

Prior to application of the sealer it is recommended that a test area is undertaken. This test area is to ensure that the sealer adheres correctly to the surface and gives the desired look and finish.

Slip resistance: it is important to check that application of the sealer to exterior surfaces does not make the concrete slippery.

- Once the sealer is cured, wet the area and check that the surface has required level of slip resistance.
- If slip resistance is not sufficient do not apply.

It is recommended that test area of 0.5 - 1.0 m<sup>2</sup> is executed according to the following protocol.

- Do the test area in a discrete part of the concrete that will be covered or hidden when the job is complete i.e. on side paths or under any fixtures.

#### 4. Preparation

Prior to application it is important to establish that Glaze Sealer can be applied to the concrete.

- Glaze Sealer cannot be applied to new concrete treated with curing compounds or other similar products.
- Some highly burnished or ground/honed floors will be too dense or 'tight' to allow the adequate adhesion.
- Old floors previously treated with other sealing compound, or contaminated and stained, may also not accept a sealer.

A simple 'water test' can quickly show if the floor will 'accept' the coating:

- Drop a small amount of water on the concrete surface.
- If the water penetrates (darkens) the concrete within 15 - 30 seconds the concrete is likely to accept the sealer.
- If the water beads on the surface this would indicate that the concrete has high surface tension (too dense) and is not suitable for sealing with Glaze Sealer.
- Beading could be due to other factors such as contaminants or other treatments in or on the concrete.
  - These contaminants or treatments must be removed prior to any sealer application.

The concrete must be completely dry before applying Glaze Sealer. If it is uncertain whether the floor is dry, conduct a Plastic Sheet Test (ASTM D4263) to confirm:

- Tape a plastic sheet (45 x 45 cm) onto the concrete surface being tested; ensuring an airtight seal between the concrete and the plastic is formed. After 24 hours remove the plastic sheet. Concrete can be coated if no moisture/condensation is present on the underside face of the sheet, or if concrete has not darkened (compared to adjacent concrete).
  - Use low tack tape to avoid marking the concrete surface.
- If moisture is present, allow to dry and repeat test.

If PFL Glaze Sealer can be applied to the concrete, then prepare the concrete as follows:

##### New concrete surfaces:

- If dirty, clean the floor thoroughly with appropriate cleaning products.

##### Ground or burnished concrete floors:

- Glaze Sealer can be applied to floors ground to 120 metal bond or less but only if they have *not* been densified.
- Ground or honed floors typically do not require treatment with Holcim Acid (acid wash).
- Ensure the floor is clean and dust free.

##### Old concrete floors:

- Any existing coating should be removed by grinding and the water test repeated to ensure all remnants have been removed.

- Any contaminated areas should be treated with appropriate cleaning agents and pass the water test prior to application of the sealer.
- Once any coatings have been removed and contaminated areas treated, clean the floor thoroughly.

## 5. Equipment

- Bucket or paint tray.
- The sealer can be applied with any of the following:
  - Soft bristle broom: recommended for textured surface and exposed aggregate concrete.
- Sprayer: HPLV (High pressure, low volume) or airless sprayers that are solvent proof can be used. Some standard pump-up garden sprayers can be used, but solvent typically breaks down working components of the sprayer (i.e. seals and gaskets) so single use only.
- Nozzle: 20 - 30° fan angle and 10 thousands orifice size with 2,000 psi pressure or equivalent. Adjust nozzle type to suit application.
- Roller: recommended for smooth or ground concrete. Solvent proof, 5mm nap mohair roller or similar.
- Safety Equipment – see section 11. Personal Protective Equipment.

## 6. Application

Glaze Sealer should only be applied when new concrete floors are fully cured (at least 28 days after pouring), and as with old concrete surfaces, concrete prepared as above.

### *New concrete floors:*

- Apply in thin coats, avoid pooling.
- Apply minimum 2 coats.
  - 'open' or porous floors may require a third coat to form an even surface coating.
- Drying time between coats is typically 2 - 4 hours after application.

### *Ground concrete floors:*

- Glaze Sealer can be applied to floors ground to 120 metal bond or less only if they have *not* been densified.
- Apply in thin coats, avoid pooling.
- Apply minimum 2 coats.
  - most ground floors will require a third or fourth coat to form an even surface coating.
- Drying time between coats is typically 2 - 4 hours after application.

### *Old concrete floors:*

- Apply the same as the appropriate type of floor above.

### Drying Time:

- Allow 24 hours curing (drying) before use.
- Vehicles can be used on the sealed surface 48 hours after sealing.

### Coverage:

- Approximately 5 – 8 m<sup>2</sup>/L
  - Coverage will vary greatly depending on the porosity and texture of the concrete.

## Clean-up:

- All equipment can be cleaned with Holcim Thinners, HOWEVER it is recommended that applicators are simply disposed of.
  - Holcim Thinners contains dangerous chemicals and must be handled with extreme care, that is why we advise disposing of any application equipment to avoid handling these chemicals.

## **7. Maintenance**

- Concrete sealed with Glaze Sealer should be cleaned using alkaline based cleaners.

## **8. Re-sealing**

Glaze Sealer can be re-applied over sealed floors that are in good condition.

If the sealer or concrete surface is very worn, stained, or damaged it is recommended that the floor is ground/honed before re-sealing. This process will alter the surface appearance by exposing the aggregate which should be considered prior to re-sealing.

For standard re-sealing of surface in good condition do the following:

- Clean floor thoroughly.
- Using low grit sandpaper (less than 240 grit) lightly sand the floor to provide a key for re-seal.
- Ensure any worn or damaged areas of sealer are sanded back appropriately.
- Clean floor thoroughly and then rinse once with fresh clean water and allow to dry completely.
- Apply sealer with a roller or soft bristle boom in thin coats, avoid pooling.
- Apply additional coats as required to form an even surface coating
- Drying time between coats is typically 4 - 6 hours after application.

## **9. Removal**

Removal of Glaze Sealer is difficult and can result in damage or alteration of the concrete surface and as such is not recommended. If required, the sealer should be removed mechanically by grinding/honing the floor. This process will alter the appearance of the floor by exposing the aggregate (stones) which should be considered prior to removal of the sealer.

## **10. Storage and Handling**

*Pack Sizes:* 5 and 20 L units.

*Handling:* Wear suitable protective clothing – see section 11. Personal Protective Equipment.

*Storage:* Store in cool, dry, well-ventilated place in original container. Store out of reach of children. Store away from direct sunlight, oxidizing agents (e.g. nitrates), acids, anionic, detergents, and foodstuffs. Keep away from naked flames and other heat sources. Take precautions against static discharge. Ensure container is sealed when not in use, and checked regularly for leaks or spills. Do not allow vapours to collect in enclosed spaces. Glaze Sealer can be stored for up to 12 months.

## **11. Personal Protective Equipment**

*Eyes:* Avoid contact with eyes. Use safety glasses and/or chemical splash goggles.

- Skin:* Suitable protective workwear e.g. cotton overalls buttoned at the neck and wrist is recommended. Chemical resistance apron is also recommended where large quantities are handled. Protective gloves are recommended. PVA or Viton/Butyl gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use. Open cuts abraded, or irritated skin should not be exposed to this material. Rubber safety boots.
- Respiratory:* A respirator is recommended when airborne concentrations approach the Workplace Exposure Standard (WES) – see SDS for more information. Use a respirator with an organic vapour cartridge and a dust/mist filter. If using respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

Refer to the SDS for full Health and Safety information.

## 12. First Aid

- Swallowed:* DO NOT induce vomiting. Give water or milk to drink. Obtain medical attention immediately. For emergency information contact the *National Poisons Centre (0800 764 766)*.
- Eyes:* Immediately flood with copious quantities of water, holding eye open if necessary, for at least 15 minutes. Seek urgent medical attention.
- Skin:* Remove contaminated clothing and shoes and wash skin thoroughly with excess water. If irritation occurs or persists, seek medical attention. Launder clothing and clean shoes before re-use.
- Inhalation:* Remove patient from exposure, keep warm and at rest. If there is respiratory distress, give oxygen and seek immediate medical attention.

## 13. Physical Properties and Identification

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|-------------------------------|------------------------------|
| <i>Appearance (in pack):</i>  | clear liquid                 |
| <i>Appearance (when dry):</i> | Transparent                  |
| <i>Odour:</i>                 | strong solvent odour         |
| <i>Solubility:</i>            | not soluble (in water)       |
| <i>Wet film thickness:</i>    | approximately 35 - 50 micron |
| <i>Dry film thickness :</i>   | approximately 20 - 40 micron |
| <i>UN Number:</i>             | 1263                         |
| <i>HSNO Approval:</i>         | HSR002662                    |
| <i>Hazchem code:</i>          | 3Y                           |
| <i>DG Class:</i>              | 3                            |
| <i>Packing Group:</i>         | III                          |

### Product Warranty

The information contained in this document is true and accurate to the best knowledge of Holcim New Zealand Ltd. We cannot however anticipate all conditions under which this information and our products may be used. Holcim New Zealand Ltd therefore accepts no responsibility and offers no warranty with respect to results obtained by the application of our products, their suitability, or for their safe use. Holcim New Zealand Ltd offers our products for sale subject to, and 'The Customer' and all users are deemed to have accepted, our Terms and Condition of Trade. Holcim New Zealand Ltd warrants our products to be free of manufacturing defects. If the product when purchased was defective and was within recommended storage life when used, Holcim New Zealand Ltd will replace the defective product with new product without charge to the purchaser. Holcim New Zealand Ltd makes NO OTHER WARRANTY, either expressed or implied, concerning our products.

