

Forti-Col™

NEW TECHNOLOGY COLLOIDAL SILICA DENSIFIER FOR CONCRETE POLISHING. CURING, ANTI-DUSTING & SEALING OF FRESH CONCRETE SLABS.



- COLLOIDAL SILICA IS THE LATEST AND BEST TECHNOLOGY AMONGST THE SILICATES:
 - SMALLER MOLECULE SIZE = BETTER PENETRATION AND QUICKER CURING.
 - SMALLER PARTICLE SIZE = GREATER SURFACE AREA WITH MORE REACTIVE SITES = BETTER CSH (HYDROGEL) STRUCTURES INSIDE THE PORES.
- FORMULATED WITH ADVANCED ADDITIVES TO OPTIMIZE PENETRATION
- CONTAINS SMALLER PARTICLES THAN OTHER COLLOIDAL DENSIFIERS
- LOWER, NON-CAUSTIC PH IS SAFER FOR PEOPLE & SURFACES
- DOES NOT BREAK DOWN UNDER UV SO LASTS FOR DECADES, EVEN OUTDOORS
- WATER-BASED, ZERO VOC
- MADE AT OUR FACTORY IN MELBOURNE, AUSTRALIA

Forti-Col™ Applications

- **Concrete Densifier for concrete polishing.**
 Forti-Col™ is a colloidal silicate with the smallest particle size – smaller than other silicates so it can be used to impregnate concrete in the earlier stages of grinding (after 80 to 100 grit grind) and later stages (after using a 400 grit polishing pad).
 Impregnating twice – once in the early grinding stages and again after the 400 grit pad, is recommended for optimal results.
- **Anti-dusting and curing treatment for green (freshly poured) concrete.**
 To attain full strength, newly poured concrete needs to retain its water content for long enough for the maximum amount of cement to react and form the correct hydrogels to make the maximum number of bonds
 Treating the concrete with penetrating Forti-Col™ will form CSH hydrogel inside the pores of the concrete, substantially restricting water bleed and evaporation so water is retained and the concrete can cure properly. Because Forti-Col™ is more reactive and has more bonding sites per molecule, it builds on itself and forms better hydrogel structures in the pores than other silicates.
- **Primer / moisture barrier membrane for green concrete.**
 Treating the concrete with penetrating Forti-Col™ will form CSH hydrogel inside the pores of the concrete, substantially restricting water bleed and evaporation so coatings and other floor coverings can be applied immediately. Freshly poured concrete contains a lot of water which evaporates and causes coatings to blister and delaminate, salts to redeposit underneath and lift tiles, damp and mould growth under carpeting, insulation matting, wood etc. So, slabs are usually left to cure for 60 days before installing flooring.

NOTE: If a 100% membrane is needed against water and water vapour, for example:

- a) areas where water can pool and sit for extended periods, such as bathrooms
- b) areas where concrete will move and crack over time.

- c) surfaces where there can be chemical spills
a suitable acrylic or epoxy class 3 membrane with sufficient elasticity, elongation and chemical resistance is recommended.

Pack Sizes

- 5L (1.3GAL); 15L (4GAL); 20L (5.3GAL).

How to Use

1. Read full How to Use instruction before applying Forti-Col™
2. Test on an inconspicuous area and allow to dry to check the result.
3. Ensure the concrete is dry inside before applying. If applying as a primer / anti-dusting / curing treatment on freshly poured (green) concrete, it is recommended to give the concrete a minimum of 2 hours cure time before applying, depending on the weather.
4. Apply when surface temperature is above 2°Celsius (36° F) and below 27°Celsius (80°F).
5. Apply generously with a pump sprayer, coating the surface evenly so it remains glistening wet for at least 2 minutes. AVOID POOLING.
6. DO NOT over apply – you want all of the product to penetrate without leaving any excess on the surface. If excess product is left to dry on the surface, it will need to be ground off.
7. How much Forti-Col™ to use:
 - a) As a primer / membrane / anti-dusting treatment: for these applications it is important to achieve maximum penetration and volume of the product so that the pores are sufficiently filled. Minimum 2 coats recommended.
 - b) For optimal polished concrete, impregnate the concrete twice:
 - i. First impregnation – after grinding with 80 to 100 grit metal-bond pad. If the first coat penetrates within 5 minutes, apply a second lighter coat (and further coats if necessary).
 - ii. Second impregnation - after 400 grit resin bond pad. If it is not penetrating well, dilute 2 parts Forti-Col™ to 1 part water.
 - iii. Allow treated surface to cure for minimum 4 hours before grinding. Forti-Col™ cures faster than sodium, potassium, lithium densifiers, but longer cure = harder = more shine.
8. Application rate PER COAT: approximately 6 to 15m² / L (240 to 600 square ft / G) depending on concrete density and porosity.
9. Recommended Dilution Ratios:
 - a) Forti-Col™ is a ready-to-use out of the container, but for freshly poured or dense concrete, Forti-Col™ can be diluted a little more - 2 parts Forti-Col™ to 1 part water (no more than 1 part Forti-Col™ to 1 part water).

Precautions

- Causes skin irritation.
- Causes serious eye irritation
- Do not get in eyes, on skin or on clothing.
- Wear protective gloves/protective clothing/eye protection/face protection.

First Aid

IF ON SKIN (or hair): Remove all contaminated clothing immediately. Rinse skin with water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Refer to Material Safety Data Sheet for more details.

For advice, immediately contact a doctor, ambulance, or, a Poison Information Centre:

Australia - 13 11 26 (Australia Wide)

USA - American Association of Poison Control Centres 1-800-222-1222

Canadian Poison Centres – Ontario (24/7): Telephone: 416-813-5900; Toll free: 1-800-268-9017

UK - England and Wales: NHS 111 - dial 111; **Scotland:** NHS 24 - dial 111; **Republic of Ireland:** 01 809 2166

Accidents

Spillage – Take up mechanically or with absorbent material such as sand, earth or vermiculite.

Transport

TDG UN Status: This material is not regulated hazardous material for transportation.

Shelf Life and Storage Guidelines

Best within 2 years of manufacture date.

Store away from direct sunlight.

Keep container tightly sealed, in a well-ventilated place, at 36 - 90° Fahrenheit of 2 - 32° Celsius

Technical Data

- Colour: Clear to slightly opaque, colourless to light straw yellow liquid
- Weight: 5L (1.3G) = 6Kg (13.2Lb), 15L (4G) = 17.25Kg (33.1Lb), 20L (5.3G) = 23Kg (51Lb), 200L (53G) = 232Kg (512Lb).
- VOCs: Zero

Country of Manufacture

Australia

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