

# CCS ARMOURTHANE

## DESCRIPTION

CCS Armourthane is a two part high solids, high build, modified, solvent based polyurethane sealer coating formulated to provide a smooth hard wearing surface for concrete.

CCS Armourthane contains special ingredients to provide an attractive, clear, non-yellowing finish with durability, flexibility and excellent chemical, stain and wear resistance.

Available in Gloss (Standard Product) and Satin when CCS Matting Additive is added.

## FEATURES AND BENEFITS

- Non yellowing formula
- Can be used internally and externally
- Maintains an adequate wet edge
- Levels well and has excellent bubble release
- Excellent adhesion to most substrates
- Durable and easily maintained with good resistance to most chemicals and solvents
- Clear finish ideal for honed concrete
- Provides an attractive gloss or satin finish
- Excellent stain resistance (incl. Tyres)\*
- Excellent water and abrasion resistance
- Retards yellowing of epoxy primers and base coats when used as a finish coat

Note: Due to efflorescence and the varying composition of bricks and other masonry substrates, it is recommended a test area be carried to assess adhesion and performance.

## RECOMMENDED USES

- Domestic and retail flooring
- CCS Platinum Polished or Honed concrete system
- Final coating over the CCS Galaxy Epoxy Coating System
- Garage and workshop floors
- An anti-graffiti coating on concrete and rendered walls
- Warehouse and factory floors
- High traffic areas
- Exposed and decorative concrete in domestic situations.
- Restaurants and Café's
- Brick and block walls
- Commercial Kitchens
- Cool rooms
- Car Parks

## PERFORMANCE PROPERTIES

Appearance	Liquid
Colour	Light Straw Coloured
Finish	Gloss
Volume Solids	45% Gloss; 40% Satin
Specific Gravity	Approx. 0.98 @ 25°C
Drying Time Gloss <sup>#</sup>	2.5 hours @ 25°C 65% RH
Drying Time Matt <sup>#</sup>	6 hours @ 25°C 65% RH
Re-coat Time <sup>#</sup>	4 - 24 hours @ 25°C 65% RH
Full Cure <sup>#</sup>	7 days @ 25°C 65% RH

<sup>#</sup> Note these times depend upon relative humidity, air circulation, temperature and film thickness. Actual times will vary according to combinations of these variables.

## PACKAGING

CCS Armourthane is available in a 20 litre kit consisting of:

Part A (Base): 15 litres

Part B (Hardener): 5 litres

Also available:

CCS Matting Additive: 1 litre

CCS Armourthane Solvent is available in a 5 litre drum.

## COVERAGE

Coverage is typically 6-8 m<sup>2</sup>/litre/coat.

A minimum of 2 coats should be applied.

## SURFACE PREPARATION

All surfaces to be treated should be clean and structurally sound. All previous coatings, adhesives, efflorescence or laitance should be removed by mechanical grinding or abrasive blast cleaning, high pressure water blasting, mechanical scrubbing or other suitable means.

### Existing Concrete

To ensure all surface contaminants are removed, apply CCS HD Degreaser or CCS Citric Cleaner to the surface, removing any oil stains. Scrub the surface with auto scrubbing equipment or use a high pressure water cleaner to remove contaminants, ensuring all traces of the degreaser are thoroughly removed.

Holes, non-structural cracks and other surface deformities should be repaired using CCS Epoxy Repair Kit in accordance with the technical data sheets.

## Over New Concrete

Fresh concrete should be left to cure for a minimum of 28 days prior to application of sealer.

Remove all oil, grease and dirt using CCS HD Degreaser, then thoroughly wash the surface using auto scrubbing equipment or a commercial high pressure water cleaner.

Where efflorescence or laitance is present, a mild wash using CCS Citric Cleaner.

Use CCS Citric Cleaner as per the label and data sheet instructions.

## Resealing CCS Armourthane

Remove all dirt and dust from the surface using HD Degreaser. Re-application of the product requires surfaces previously sealed with CCS Armourthane to be lightly grinded or sanded to provide an adequate 'key' for the new sealer.

Apply one undiluted coat of sealer as per guidelines. Allow the surface to cure for at least 24 hours before subjecting it to pedestrian traffic, and 96 hours before allowing light vehicular traffic over it. Allow five to seven days before subjecting the surface to chemical attack or severe abrasion.

## APPLICATION

All concrete surfaces must be thoroughly dry before applying any sealer.

CCS Armourthane should be applied with a good quality roller or brush.

1. Premix Part A and Part B of the kit separately to form a homogeneous paste.
2. Join the two components by mixing one part of Part B with three parts of Part A. Mix thoroughly for a minimum of five minutes until well blended. Then allow the product to sit for five minutes before applying it to the surface. For a Satin finish, mix 1 litre of CCS Matting Additive into the combined mixture (Part A +B).  
Note: Only mix as much as might be used within the pot life of the product (i.e. the pot life of the product is approximately 45 minutes to one hour depending on climatic conditions).
3. Avoid trapping air during mixing as this may cause later 'pin holing' in the coating during application

Apply the first coat of CCS Armourthane at the rate of 6m<sup>2</sup>/litre on smooth concrete and 6m<sup>2</sup>/litre for Galaxy Flake Floors in a uniform manner to ensure adequate cover and a smooth finish. The first coat of CCS Armourthane can be diluted 5–10% with CCS Armourthane Solvent for very dense substrates.

For smooth surfaces such as honed concrete a lamb's wool or mohair roller are the best application tools. When applying the product, it is important to maintain an even wet edge with the least amount of agitation or aeration.

Do not work the coating excessively or apply the coating too thick as this may result in air bubbles being trapped and a soft cloudy film.

Allow the first coat to dry for a minimum of three to four hours dependant on climatic conditions before applying the second coat.

Apply the second coat of CCS Armourthane at the rate of 8m<sup>2</sup>/litre on smooth concrete and 8m<sup>2</sup>/litre for Galaxy Flake Floors and allow to dry overnight. The second coat should be applied undiluted at right angles to the previous coat.

For commercial and other high traffic areas a third coat is recommended.

Allow the surface to cure for at least 24 hours before subjecting it to pedestrian traffic, and 96 hours before allowing light vehicular traffic over it. Allow five to seven days before subjecting the surface to chemical attack or severe abrasion.

## Decorative and Polished Concrete

Apply two coats of CCS Armourthane at right angles to each other.

To reduce the wear and tear of CCS Armourthane we recommend that our sealer polish system, CCS Sheen, be applied. (See Technical Data Sheet for further information.)

CCS Armourthane should be allowed to cure for a minimum of 24 hours before applying CCS Sheen.

## Precautions

CCS Armourthane should not be applied to surfaces subject to hydro static pressure or rising dampness. Prior to using CCS Armourthane the manufacturer should be consulted if the following conditions exist:

- The concrete substrate is porous or in poor condition
- The surface is subjected to unusually cold conditions (i.e. below 10°C)
- The surface is above ambient temperatures whilst in service (e.g. floors subjected to hot or boiling water)
- The floor is subjected to severe chemical attack.

## APPROPRIATE SURFACE TEXTURE

- As a general statement, the application of a coating to concrete will reduce the existing slip resistance of that surface. Consequently, care must be taken before sealing concrete to ensure that the surface texture has sufficient profile to provide adequate traction. To aid traction, mix a satchel of CCS Sealer Grip additive into the sealer prior to application of the final coat. However, as the sealer wears, the traction additives will also diminish in effectiveness.
- CCS Glass Beads can also be added to aid traction. CCS Glass Beads should be applied during the application of the first coat by casting it onto the surface in a uniform manner. A second coat of CCS Armourthane should then be applied over the glass beads.

## Tyre Resistance

\* Note: If there is friction between the tyre and the floor surface, a black mark sometimes appears.

This is a residue of carbon black which is a filler in rubber tyres that has been deposited onto the floor surface and is the result of a mechanical action and deposition.

However, yellow to brown stains can occur after certain types of tyre have been in direct contact with a light coloured floor coating over a period of time.

This stain is due to the presence of one or more additives used in the manufacture of certain tyres. The tendency and extent of the tyre to stain will depend on both the type of tyre and the type of floor coating.

Armourthane has proven over field service life to display good tyre stain resistance properties to the majority of tyre brands. However, due to potential choices of sub-coatings and extremes in weather and drying conditions during the curing of the floor coating, it is recommended not to leave car tyres directly in contact with the floor for a minimum 7 days after application and then no longer than overnight for another two weeks.

If a vehicle is to be left in contact with the floor for extended periods of time (i.e. greater than 4 weeks), place a mat or other material (not made of rubber) on the floor area where the tyre is most likely to rest to prevent the tyre from making contact with the floor coating.

## CLEAN UP

Clean all equipment immediately with CCS Armourthane Solvent. Cured material can be removed using CCS Enviro Stripper or by mechanical means.

## STORAGE

Protect containers from physical damage. Store in a cool, dry well-ventilated location away from any area where the fire hazard may be acute. Avoid excessive heat, ignition sources and contamination with dirt and other foreign materials. Avoid contamination or inappropriate mixing with strong oxidising agents, peroxides, strongly caustic materials and metal corrosion products including rust. Store away from foodstuffs. Keep containers closed at all times.

### PLEASE NOTE

The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.

To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, inadequate preparation, inexperienced or negligent application, or ordinary wear and tear.

Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor (and not River Sands), is responsible for procedures relating to the application of the product.

## FIRE

CCS Armourthane is a flammable liquid.

Contact with strong oxidisers may cause fire. Sensitive to static discharge. DO NOT smoke or use any ignition devices near the product.

For further information consult the Safety Data Sheet and read the product label carefully before use.

Safety Data Sheets are available from [www.concretecoloursystems.com.au](http://www.concretecoloursystems.com.au) or by calling 1800 077 744.

## User Responsibility-Product Selection and Compatibility

CCS warrant that their manufactured product is free from defects as well as being suitable for the purpose for which it is intended as long as it has been used and applied in accordance with the most current Technical Data Sheet from CCS.

In practice, differences in materials, substrates and actual site conditions require an assessment of product suitability for the intended purpose.

The user is responsible for checking the suitability of products for their intended purpose.

Further, combinations of products that form a total system are often required to service particular applications. Due to the multitude of products available to service an application, only products from the CCS system of products must be used in combination with this product to ensure it will be suitable for the purpose for which it is intended.

The product must also not be mixed or used in combination with any other product which is not a product supplied by CCS



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