

# CCS COLOUR HARDENER

March 2022

## DESCRIPTION

CCS Colour Hardener is a pre-mixed, ready to use product designed for application as a dry shake over freshly floated concrete.

It consists of a processed blend of synthetic iron oxides, chrome oxides and titanium dioxide pigments, specially graded washed silica quartz aggregate, fresh Portland cements and surface conditioning agents.

CCS Colour Hardener is in accordance with a Quality Assurance system to Australian Standard AS3902.

UV resistant pigments used in the product to ensure vibrant long lasting concrete surface colours, also comply with the World Pigment Standard BS1014.

## RECOMMENDED USES

- Driveways and pathways
- Patios and garages
- Median strips (traffic islands)
- Roads
- House interiors and factory floors

## PACKAGING

CCS Colour Hardener is available in 20kg paper sacks with plastic liner.

## FINISHES

CCS Colour Hardeners have been formulated for use in the following finishes:

### Stencil Pave

There are 19 stencil designs in the CCS range including brick, cobble and tile. A plastic coated stencil is applied to the surface of fresh concrete. CCS Colour Hardener is then applied in two coats at the rate of 20kg per 10m<sup>2</sup>, trowelled in. When the concrete is firm, the stencils are removed to leave a grouted brick, cobble or tile effect.

### Pattern Concrete

CCS Colour Hardener is applied to fresh concrete in two coats, trowelled in and then covered with a CCS Coloured Release Agent. Special textured tools are used to imprint a design in the fresh concrete surface.

### Coloured Floors and Driveways

CCS Colour Hardener is applied to the surface of fresh concrete in two applications and is trowel finished.

## COLOURS

There are 4 standard colours in the range. Please refer to the CCS Stencilpave and CCS Pattern Stamped Concrete brochures for actual colour hues.

COLOUR TONE	COLOUR NAME
Brown	Sandstone
Grey/Black	Charcoal Black
Terracotta	Terracotta

## APPLICATION RATE

The rate of application depends on the service conditions the floor will be exposed to. Recommended rates are as follows:

- Domestic driveway, paths and car parks with vehicular traffic under 3 tonnes: 2.0kg - 2.8kg/m<sup>2</sup>
- Public roadways and industrial hard stands: 3.3kg/m<sup>2</sup>
- Busy shopping footpaths and malls with heavy pedestrian traffic: 4kg/m<sup>2</sup>

Surfaces finished with CCS Colour Hardeners at the recommended rate have a significantly longer serviceable life than plain grey concrete

CONCRETE SURFACE TYPE	ABRASION INDEX STANDARD	ABRASION WITH CCS HARDENER	M20 TEST RESULT
Driveways	1.2	2.98	Pass
Footpaths	1.2	2.98	Pass
Roads	1.5	2.98	Pass
Pedestrian	2.0	2.98	Pass

Testing conducted by QUT in accordance with Appendix D MA20 Abrasion Test, Specification for Concrete Segmented Paving Units. Surfaces were finished with CCS Hardener at the rate of 2.0kg/m<sup>2</sup>.

## STRENGTH

Typical Compressive Results of tests conducted on crushing cubes made from CCS Colour Hardener reveal the following typical strengths:

COMPRESSIVE STRENGTH (AS1012.2 : 1994)	
1 Day	28MPa
3 Days	45MPa
28 Days	up to 79MPa

Summary: High early and long term strength results ensure a strong abrasive resistant surface finish is achieved.

## SUGGESTED SPECIFICATIONS

### Pattern Stamped Concrete

1. Concrete should be coloured with CCS Colour Hardener at the rate of 1 x 20kg bag per 7 - 10m<sup>2</sup>.
2. CCS Release Agent should be applied to all concrete surfaces to be imprinted with a textured mat.
3. After three days, wash off excess CCS Powder or Liquid Release Agent. Once dry, the slab should be sealed with HI-Build Enduro Matt or Gloss with Sealer Grip.

### Stencil Pave Concrete

1. After screeding and floating has been completed, apply the CCS Stencil to the surface.
2. Apply CCS Colour Hardener at the rate of 1 x 20kg bag per 7-10m<sup>2</sup>.
3. Apply a coat of CCS Same Day Sealer on the day of the pour. Apply two coats of either CCS Hardseal Advance, CCS Hi Build Enduro or CCS Hi-Build Enduro Matt or Gloss when concrete has cured sufficiently (7-21 days).

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## **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.

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

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

**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, incompetent 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 the procedures relating to the application of the product.