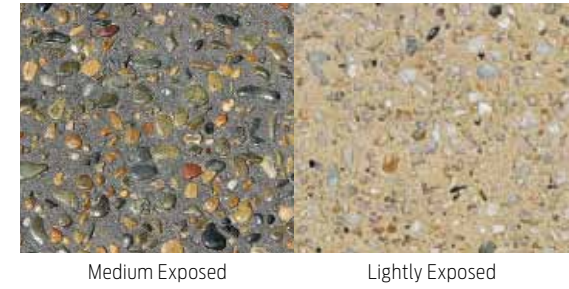


A guide to some of the finishes that can be used to add character to coloured concrete

Exposed aggregate



Special CCS surface retarders such as CCS Reveal are applied to the surface of the wet concrete and then subsequently removed using water pressure to expose the coloured aggregate contained in the mix.

Broom and coving trowel finishes



The use of a broom or coving trowel to finish the concrete creates a textured surface.

Honed Concrete and Polished Concrete



With honed concrete, grinding machines remove the top layer of the concrete to create a smooth matt/satin surface.

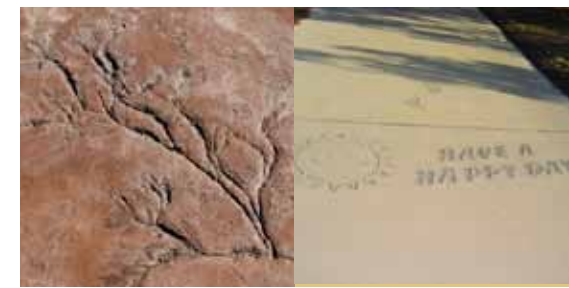
Polished concrete is concrete that is honed and then polished. The concrete is machined for a longer period of time using finer abrasives until the surface is extremely glossy and reflective.

Saw cuts or grooved finish



The coloured concrete is given further definition by creating geometric patterns using grooved joint lines or by saw cutting the surface at a later date.

Artistic Creations



Objects can be placed in the concrete to leave permanent imprints.

Rock Salt



A pitted or aged appearance is created by using the various CCS stamping mats or by adding 10mm lumps of rock salt to the wet surface. These lumps are subsequently dissolved with water to create a pitted surface.

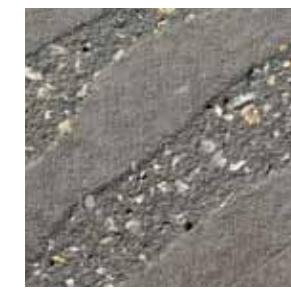
Machine trowel finish



Finishing the coloured concrete with a machine trowel gives a smooth, polished appearance.

It is important to note that a machine trowelled surface will show slight variations in colour, due to the finishing process involved.

Sand blast finishes



With this method the top few millimetres of the coloured concrete is removed to create a coloured sand type finish.

Off form or precast concrete



Patterns and textures are embedded into the concrete at the precast concrete plant or on site using specially designed forms.

Textured imprint mats



Textured mats make it easier to provide an interesting, consistent pattern.

How to replicate the latest CCS colours

The enclosed swatches depict the colour that can be achieved using the prescribed dose rate of CCS Pigments in concrete using a steel trowel finish.

Variations in colour between the enclosed swatches and the actual concrete colour achieved can occur due to differences in finishing techniques, curing methods, environmental conditions, the type and slump of concrete as well as the raw materials used.

Where an exact colour is essential, representative job samples using the intended raw materials; finishing techniques and sealers should be completed and then inspected once the sample has cured for 14 to 28 days.

Colour variations between swatches and exposed aggregate and honed concrete surfaces.

The top layer of coloured concrete is removed when exposed aggregate or honed concrete finishes are created. Consequently the colour of the concrete will generally appear more 'earthy' compared to the enclosed colour swatches. This is due to the dominance of the sands and aggregates used in the concrete mixture.

For more information regarding the optimum placement of coloured concrete, please refer to our *Guidelines for Integrally Coloured Concrete* on our website www.concretocoloursystems.com.au

High strength pigments made to endure

Only pure, high tint strength, long lasting pigments are used to create CCS Pigment Concentrates.

CCS Pigments consist of blends of synthetic iron oxides, titanium dioxides, chrome oxides and cobalt aluminium with maximum resistance to UV light and the aggressive alkaline conditions in concrete. They are manufactured in accordance with our Quality System certified to ISO 9001 and conform to the relevant world standards for concrete pigments.



CCS pigment concentrates are UV and weather resistant.



Creating coloured concrete using the CCS prepack system



1 Preformulated bags of CCS pigment concentrates are added to the concrete truck at the predesignated rate of one bag (or sometimes two, depending on the colour) per cubic metre.

2 After sufficient mixing, coloured concrete is discharged from the concrete truck.

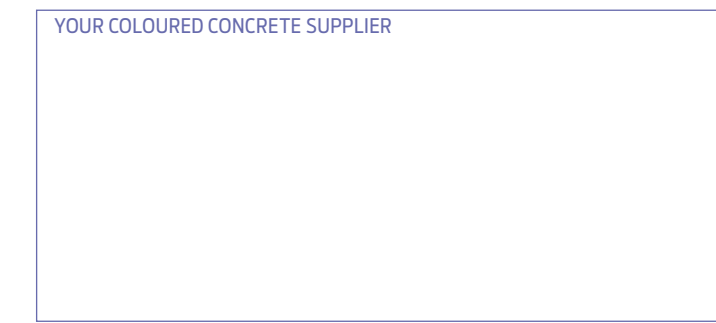
3 Coloured concrete is screeded and floated.

4 A close up of the final result.

Colour matching and special colour formulations

As a blender of pigments, we are experts in creating or matching colours for concrete. Simply forward us a sample of the desired colour (such as a paint swatch, tile or paver) and our fully certified NATA laboratory will match it.

Due to the size of our mixing equipment, a minimum of 500kg of pigment must be ordered (suitable for approx. 400m² of concrete) to ensure a homogenous mixture is subsequently supplied.



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colours
to inspire
any imagination!



Concrete Colour Systems
Colour palette 2010

CCS Sealers – purpose designed for enhancing the performance of coloured concrete

For optimum long term results all coloured concrete should be treated with a CCS penetrating or surface coating sealer.

Site conditions, Green Star requirements, aesthetics, and the desired level of chemical and abrasion resistance, will collectively determine which CCS sealer is the ideal coating for the particular project at hand.

Please note that there is no one sealer that is perfect for all applications, however at least one of our CCS sealers will be suitable in each application. The tables on this page are an excellent starting point for specifying the ideal CCS sealer for a variety of situations.

A brief overview of the most popular CCS exterior sealers

CCS Stainblock

A premium strength, modified silane sealer providing maximum resistance to oils and stains generated from food and beverages, chewing gum, water and salt. Its penetrating nature creates a natural looking finish without any detrimental effect on slip resistance.

CCS Streetscape Sealer (water based)

A 'Green Star Building Code' compliant, water based, penetrating silane-siloxane sealer providing resistance to oils and stains generated from food and beverages, chewing gum, water and salt.

CCS Natural Seal Supreme H/V

An economical penetrating silane-siloxane sealer that provides resistance to the ingress of water and salt.

CCS Hi-Build Enduro

A high solids, durable acrylic sealer that enhances the colour of the concrete while providing a long life gloss.

CCS sealers for interior applications

There are four CCS sealers to choose from when sealing interior honed or polished concrete surfaces.

The level of gloss and the depth of coating protection desired, will determine the sealer system that is used. A Platinum rating of 'four stars', for example, denotes a high build, extremely lustrous coating, whereas a Platinum rating of 'one star' denotes a more natural, low sheen finish.

The four star and three star finishes consist of a combination of an epoxy sealer over-coated with the CCS Decrathane polyurethane sealer. The epoxy sealer provides the high gloss and high build coating whilst the CCS Decrathane provides the protection against UV light, scratching and marring.

Where a high gloss and high build look is not desired, the CCS Decrathane Semi-Gloss or Satin sealers can be used in a minimum of two coatings to provide a single sealer system.

The table to the right lists the options.



Recommended sealers for exterior applications

Application	Recommended Sealer	Type of Sealer	Low VOC Green Star Compliant
Streetscapes	CCS Streetscape Sealer	Penetrating	✓
Bike Tracks	CCS Streetscape Sealer	Penetrating	✓
Pedestrian Paths	CCS Streetscape Sealer	Penetrating	✓
Building surrounds	CCS Streetscape Sealer	Penetrating	✓
Roadways	CCS Streetscape Sealer	Penetrating	✓
Honed Concrete	CCS Streetscape Sealer	Penetrating	✓
Concrete Paving	CCS Streetscape Sealer	Penetrating	✓
Exposed Aggregate	CCS Streetscape Sealer	Penetrating	✓
Shopping Centre surrounds	CCS Stain Block	Penetrating	✓
Alfresco Dining Areas	CCS Stain Block	Penetrating	✓
Honed Concrete and Terrazzo (food areas)	CCS Stain Block	Penetrating	✓
Concrete Paving food areas	CCS Stain Block	Penetrating	✓
Natural Porous Stone	CCS Stain Block	Penetrating	✓
Vertical Walls	CCS Natural Seal Supreme H/V	Penetrating	✓
Coloured Concrete and Exposed Aggregate – Domestic	CCS Hi-Build Enduro	Coating	✓

Recommended sealers for interiors

Level of Platinum Finish	Gloss Level	Depth of Coating	Number of Coats	CCS Sealer System	Low VOC Green Star Compliant
4 Star ****	High Gloss	High Build	2	CCS Ultra Epoxy 100% Solids as base coating.	✓
			2	CCS Decrathane Satin Sealer as top coat.	✓
3 Star ***	Semi Gloss	Medium Build	2	CCS Ultra Epoxy water based base coating.	✓
			2	CCS Decrathane Satin Sealer as top coat.	✓
2 Star **	Semi to low Gloss	Regular Build	2	CCS Decrathane Semi Gloss sealer.	✓
1 Star *	Satin	Regular Build	2	CCS Decrathane Satin sealer	✓

As noted in the table, all of the above CCS sealers contain low volatile organic compounds (VOC's) and meet Green Star Building Code IEQ-13 requirements.

Concrete Colour Systems also supply a range of compatible polishes and cleaners to ensure the above sealer systems retain their beauty.

Note: For detailed sealer specifications go to www.concretocoloursystems.com.au or phone your nearest CCS office.



Rich pigment blends for full depth colouring of **grey** concrete

CCS GHOST GUM	CCS BLUE GUM	CCS RAFFIA BEIGE	CCS CORN*	CCS GIPSY*	CCS CAMEO	CCS KALAHARI	CCS SANDPLAIN	CCS LIMESTONE	CCS CANVAS	CCS APOLLO*	CCS GRASSHOPPER
CCS ONYX 21	CCS SMOKEY BLUE	CCS LEMON GRASS	CCS RATTAN	CCS OUTBACK	CCS PAPERBARK	CCS BISCUIT	CCS CANYON	CCS EUCALYPTUS	CCS YORKSTONE	CCS PEWTER	CCS LYCHEE
CCS BLACK 21	CCS GOTHIC CHARM	CCS DESERT BUFF*	CCS GOLDEN BRONZE	CCS BRICK RED	CCS DRIFTWOOD	CCS SADDLE	CCS MUDPACK*	CCS IGUANA	CCS HONEYCOMB	CCS MULBERRY	CCS ELEPHANT
CCS LIQUORICE*	CCS VOODOO*	CCS PUTTY	CCS MOROCCO	CCS RUBY	CCS SPINIFEX	CCS CARAMEL	CCS CHOCOLATE	CCS AMAZON	CCS DESERT SAND	CCS KAKADU	CCS WATER BUFFALO
CCS SAVANNAH	CCS SUNDANCE	CCS FIRECRACKER*	CCS BOOMERANG	CCS CHEROKEE	CCS KELP*	CCS CACTUS*	CCS CAIRO	CCS MOSS GREEN	CCS LIZARD SKIN*		

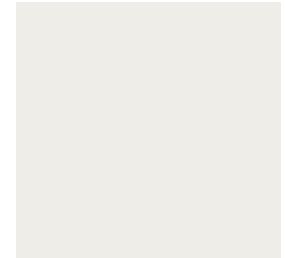
Suggested Specification

Concrete is to be integrally coloured with Concrete Colour Systems _____ CCS COLOUR NAME

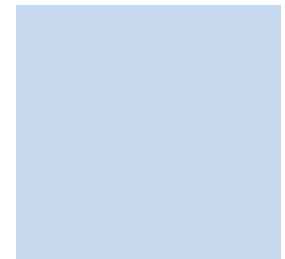
Pigment Concentrate (ph. 1800 077 744 or closest city ph. no). One pre-formulated bag (please use 2 bags where nominated by *) is to be added for each cubic metre of _____ CONCRETE STRENGTH MPa, using _____ GREY OR 'OFF-WHITE' cement. All surfaces should be finished uniformly – do not over-trowel. Do not cure with plastic sheeting, membrane paper or intermittent wetting and drying. Caution should be taken to ensure any curing compound is suitable for both structural and aesthetic purposes.



Pastel shades using **off-white** concrete



CCS SNOW



CCS KINGFISHER



CCS LIGHT PEACH



CCS BUTTERSCOTCH

Please note that due to space limitations at concrete plants, 'off white' concrete is only available from a small number of concrete plant sites.

