

CCS DEFEND XT INDUSTRIAL EPOXY

March 2022

DESCRIPTION

CCS Defend XT Industrial Epoxy is a two-part high solids, low viscosity, cycloaliphatic, epoxy resin suitable for coating of industrial and commercial concrete floors. Defend XT Industrial Epoxy will penetrate deep into the surface to seal and protect the concrete.

RECOMMENDED USES

- 2:1 mix ratio by volume
- Fast thin film cure of 3.5 hours
- Low mixed viscosity of 240 CPs readily penetrates concrete
- Excellent chemical resistance
- Blush-free, clear finish even in cold, damp conditions
- No induction time required
- Good flexibility
- Easy to mix and apply

COLOUR

N35 Grey. Other colours are available depending on volume and lead time.

THEORETICAL COVERAGE RATES

First Coat 3 to 5 m² per litre

Second Coat 5 to 8 m² per litre

APPLICATIONS

Any interior concrete floor requiring a strong and serviceable epoxy floor coating.

APPLICATION METHOD

Apply CCS Defend XT Industrial Epoxy with a good quality roller, squeegee or gauge rake.

PREPARATION

Prepare, profile and clean concrete using industry standard techniques. All surfaces should be structurally sound and 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.

Holes, non-structural cracks and other surface irregularities should be repaired using a paste made from CCS Defend XT Industrial Epoxy.

FIRST COAT

1. Using a mechanical mixer stir Part A (epoxy base) in its original container for at least 30 seconds before use.
2. Add Part B (hardener) to Part A (epoxy base) and mechanically mix for 1 minute. Whilst mixing make sure to scrape product downwards from the insides of the container. Avoid entrapping air into the mix during the mixing process. The ratio of Part A (epoxy base) to Part B (hardener) is 2:1. Do not vary the ratio of Part A and Part B under any circumstances.
3. Only mix as much as is likely to be used within the pot life of the product (the pot life is approximately 50 minutes at 25 °C). To extend pot life place mixed product in an ice bath or place Part B Hardener in a refrigerator for a period to cool it down.

4. Once Part A and Part B are mixed and ready to apply vigorously work first coat into the surface ensuring that all pores and holes are filled.

SECOND COAT

Mix CCS Defend XT Industrial Epoxy in the same method as the above first coat instructions.

Note: It is imperative that you use a clean bucket and clean mixer before commencing mixing and application of the second coat.

APPLICATION GUIDELINES

- Treat unintentional stress cracks in concrete by "chasing" them with a V shaped diamond grinder then fill gap with CCS Defend XT Industrial Epoxy paste.
- Expansion joints should have sharp edges chamfered,
- Remove all high spots and protrusions.
- If concrete is very porous apply CCS Defend XT Industrial Epoxy in the afternoon when the concrete is cooling down to avoid bubbles forming in the system due to 'outgassing' of the concrete. If bubbles form, ensure they are flattened and re-coat them CCS Defend XT Industrial Epoxy.
- Although CCS Defend XT Industrial Epoxy is highly resistant to amine blush, be aware of surface temperatures dropping to within 3° of the dew point.
- Always mechanically stir Part A (epoxy base) thoroughly.
- Mix appropriate quantity of CCS Defend XT Industrial Epoxy following "First Coat" instructions carefully.
- Apply CCS Defend XT Industrial Epoxy up to the edge of any tape or masking.
- CCS Defend XT Industrial Epoxy may be applied using a roller, squeegee, brush or spray.
- Wait until the CCS Defend XT Industrial Epoxy has gelled before applying additional coats
- If the CCS Defend XT Industrial Epoxy is more than 72 hours old the surface should be mechanically sanded using 80 grit paper before re-coating to ensure proper coat to coat adhesion.
- Use CCS Slip Reduction Granules to provide a more slip resistant surface if required.
- Up to 10% of Xylene can be added to first coat if required.

LIMITATIONS

- Colour change and surface chalking will occur if product is exposed to UV light.
- If the concrete slab has outgassing from rising temperatures or high moisture content apply a thin coat first and work it well into the surface ensuring to fill all pores and holes.
- Second coat can be applied between 4 and 72 hours however the surface must be clean and dustfree. If applying after 72 hours the surface must be mechanically sanded with 80 grit sanding disc to ensure the second coat will bond to the first coat.
- Mixing too much product at once will diminish the pot-life. When applying to larger areas, pour the mixed product directly onto the concrete surface and roll or spread using a squeegee or gauge rake.
- Defend XT is not suitable for use on damp or green concrete.

CCS DEFEND XT INDUSTRIAL EPOXY

March 2022

TYPICAL WET PROPERTIES

PROPERTY	PART A	PART B
Appearance	Coloured Liquid	Amber Liquid
Viscosity @ 25°C (CPs)	896	118
Mixed (A+B) Viscosity (CPs)	240	
Specific Gravity @ 25°C	1.22	0.97
Solids Content (wt%)	100	85
Mixed (A+B) Solids Content (wt%)	93%	
Mix ratio: Parts by volume	2	1

TYPICAL CURED PROPERTIES

PROPERTY	TEST METHOD	RESULTS
Pot Life (minutes)	100g @ 25°C	50
Thin Film Dry Time (touch/hard/through)	(hrs) @ 25°C	3/4/5
Hardness - Shore D	ASTM D 2240-1	60
Elongation @ 25°C	ASTM D412 06ae2	1-2%
Abrasion Resistance	ASTM C501-84, H18 wheel @ 1000rpm with 1000g weight	98
Tensile Strength	ASTM D412-92	16.0 MPa
Tear Strength	ASTM D412-92	98N.mm
Solids (A+B mixed)		100%
Flash Point	Pensky Martens	>180°C
Theoretical Coverage	1L (A+B mixed)	4m ² - 8m ²
Thin with (A+B mixed)	Xylene to maximum of	10%
Recoat Schedule	Must be dust free	4hrs - 4 wks

CLEAN UP

Wash all equipment in CCS Solvent after use.

STORAGE

Store between 10°C and 30°C away from direct sunlight. Shelf life is 12 months in original unopened container. Partly used containers must be sealed tight when not in use.

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.concretecoloursystems.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 no River Sands), is responsible for the procedures relating to the application of the product.