

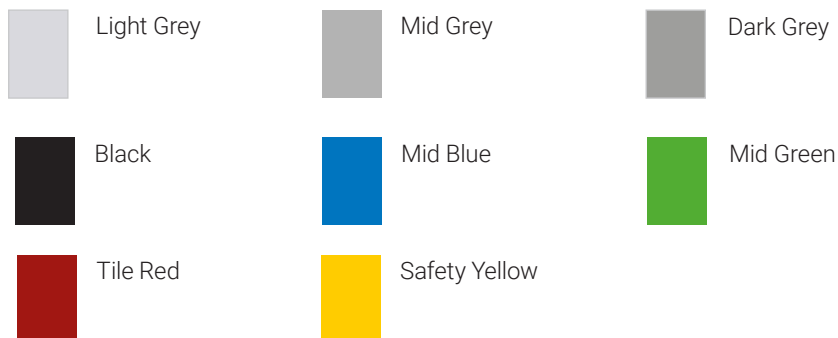
# Chemi-Coat®

Chemi-Coat Anti Slip, Chemi-Coat Rapid  
Chemi-Coat Cold cure, Chemi-Coat Acid Strength



Watco has developed a range of formulations to offer excellent resistance to chemical spillages. This one coat, high build, virtually solvent free epoxy resin floor coating guarantees exceptional wear and offers superior protection for concrete floors. The 'rapid' versions cure within just 8 hours to withstand light traffic saving on downtime, whilst the 'anti slip' versions provide a good level of slip resistance where needed. Chemi-Coat Cold Cure can be applied in cold conditions. Chemi-Coat Acid Strength has a modified formula, which makes it more resistant to acid (up to 98% Sulphuric). Please contact us for details regarding other chemicals. A grit additive can also be supplied to make Chemi-Coat Acid Strength Anti-Slip. All grades now carry CE Mark EN1504-2 and have impressive test results for hardness, abrasion, scratch and impact resistance as well as for adhesion, slip resistance and flexibility. They also offer superior chemical resistance and have an A+ VOC emissions rating with a low level of VOC.

### Colours



Chemi-Coat Acid Strength is available in Light and Mid Grey only. While great care is taken with the colour samples shown, no guarantee can be given that they represent exactly the colours offered.

### Areas of use:

- Any area where chemicals are stored or used
- Chemical bund areas

### Features:

- Versions available: Chemi-Coat, Chemi-Coat Rapid, Chemi-Coat Anti Slip, Chemi-Coat Cold Cure, Chemi-Coat Acid Strength
- One coat, high build 100% solids epoxy resin coating – gives excellent chemical and wear resistance with just one coat
- Chemi-Coat Acid Strength resists up to 98% Sulphuric Acid
- Anti Slip versions carry a Wet PTV of 66.2
- Glossy, attractive, easily cleaned finish
- Low odour – safe to use in confined spaces
- Cures within 8 hours to withstand light traffic (see 'Rapid' versions)
- Superior performance demonstrated
- Suitable for Light, Medium and Heavy Traffic by ISO testing to CE Mark EN1504-2

## Need help? Speak to the experts

Our dedicated and professional team are here to help you get the best results for your project. They will talk you through the preparation and application stages when using **Chemi-Coat**.

Call our expert team on: **01483 418 418** (Weekdays 8:00am - 5:30pm. Saturday 9:00am - 12:00pm)



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## 1 Surface Preparation

**Bare Concrete** – remove surface laitance, dust and any light dirt or grease deposits using Watco Etch & Clean. Watco Etch & Clean also etches smooth, bare concrete surfaces to provide a key. Flush with clean water and allow surface to dry. For the removal of heavier deposits of oil and grease we recommend Watco Concroff, again, flush with clean water and allow the surface to dry.

**New Concrete** – as a guide, new concrete should be left for eight weeks to dry (if the application has to go ahead before this, use Watco New Concrete Primer). The surface should then be prepared using Watco Etch & Clean and thoroughly rinsed away and left to dry prior to applying primer or coating.

**Painted surfaces** – abrade to remove any weak or loose paint. Check remaining paint is well bonded. Very smooth, glossy paint should be lightly abraded to provide a key. Watco Bio-D can be used to remove grease and oil from painted surfaces.

**Priming** – is not usually required, however for any open textured, or very porous high suction surfaces (such as sand and cement screed) use Watco 4 Hour Epoxy Primer to ensure a uniform finish and prevent air entrapment bubbles. Very smooth or power floated concrete should be primed with Watco Powerfloat Primer.

**Metal** – remove any rust and flaking material by disc grinding or wire brushing. Apply the coating immediately after preparation to the clean metal surface. Grease or oil can be removed using Watco Bio-D. Allow the metal to dry before coating.

**Galvanised Metal** – Watco Galvaprime must be used to prepare galvanised metal.

**Non-ferrous Metals** - for advice, please contact our Technical Department.

## 2 Mixing

Remove the two inner tins from the tall outer tin. Stir the contents of each tin thoroughly and pour all of the contents into the outer tin (scrape around the inside of the tins to remove any residue). Mix the components together thoroughly using a spatula or similar wide bladed tool (a piece of wooden batten is ideal). Do not thin. Continue mixing until an even colour and consistency are obtained. Do not mix more than one pack at a time. If a paint stirrer fitted to an electric drill is used, also use the spatula to blend in any unmixed material from the sides and bottom of the tin. The standard Anti Slip version has a pre-blended aggregate; for Acid Strength this is supplied as a third component and needs to be mixed in or cast over the coating.

## 3 Application

**Important** - once the contents of the pack have been mixed, a chemical reaction takes place which creates heat. The product should therefore be decanted into a shallow tray to avoid reducing the pot life and used straight away. Best results are obtained in warm (minimum of 15°C), dry conditions with good ventilation. Apply one coat with a medium pile roller (not foam) working well into the surface of the concrete. On vertical surfaces two thin coats are recommended. Do not exceed the maximum coverage of 18m<sup>2</sup> per 4 litre pack. Do not wash or allow water to lie on the surface for at least 7 days.

## 4 Safety

Material Safety Data Sheets are available.

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## Specification

<b>Composition</b>	High build, 100% solids epoxy resin.
<b>Number of Components</b>	1 x curing agent and 1 x resin.
<b>Finish</b>	Coloured, high gloss, smooth (anti slip also available).
<b>Primer Required</b>	*see 'surface preparation on P.2'
<b>Number of Coats</b>	1
<b>Dry Film Thickness</b>	220 microns.
<b>Wet Film Thickness</b>	220 microns.
<b>Usage Interior/Exterior</b>	Interior.
<b>Application Tools</b>	Medium pile roller. Cut in using a brush.
<b>Minimum Application Temperature</b>	Air temperature 15°C Floor temperature 10°C (5°C for 'Cold Curing' versions).
<b>Suitable For</b>	Concrete, sand and cement, well bonded paint and some metals. The moisture content of concrete should be less than 75% RH.
<b>Pack Size</b>	4L
<b>Coverage</b>	18m <sup>2</sup>
<b>Pot Life</b>	25 mins at 20°C ('Rapid' version 20 mins at 20°C)
<b>Mix Ratio (by weight)</b>	100 parts resin : 24 parts curing agent.
<b>Cleaning</b>	Normal industrial cleaners. Do not steam clean or subject to temperatures in excess of 60°C.
<b>Storage</b>	Between 15°C-25°C for at least 8 hours prior to use. Do not allow to freeze.
<b>Principle Limitations</b> Please contact us regarding applications not described here.	Most self-levelling compounds cannot be painted – please ask for details. Unsuitable for asphalt. Painting chequer plate can be a problem since coatings can wear prematurely off the 'high spots'. Do not apply to damp surfaces.

## Curing Times

	Recoat Times	Touch Dry	Light Traffic	Heavy Traffic
<b>Standard, Anti Slip, Acid Strength</b>	16 at 10°C, 10 at 20°C, 6 at 30°C	12 at 10°C, 6 at 20°C, 4 at 30°C	24 at 10°C, 16 at 20°C, 8 at 30°C	48 at 10°C, 48 at 20°C, 16 at 30°C
<b>Cold Cure</b>	24 at 5°C, 16 at 10°C, 12 at 20°C 6 at 30°C,	16 at 5°C, 12 at 10°C, 6 at 20°C 4 at 30°C	30 at 5°C, 24 at 10°C, 16 at 20°C 8 at 30°C	72 at 5°C, 48 at 10°C, 48 at 20°C 16 at 30°C
<b>Rapid, Rapid</b>	12 at 10°C, 6 at 20°C, 4 at 30°C	8 at 10°C, 4 at 20°C, 3 at 30°C	16 at 10°C, 8 at 20°C, 6 at 30°C	48 at 10°C, 16 at 20°C, 16 at 30°C

Full Chemical Resistance: 7 days. Light Traffic: Foot, trolley, pallet truck, occasional forklift. Heavy Traffic: Regular forklift, heavy footfall, parked vehicles.

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## Test Results



### Abrasion Resistance ISO 5470-1

Taber test method expresses results in mg on a scale between 0mg (highest resistance) and 3000mg (lowest). A reading below 3000mg is a CE mark pass.

3000mg —————> 0mg  
Lowest —————> Highest



### Flexibility ISO 1519

Flexibility is measured using a Mandral Flex Tester, 2mm is the most flexible, 36mm the least.

36mm —————> 2mm  
Lowest —————> Highest



### Impact Resistance ISO 6272

Impact is expressed as Newton metres. Greater than 4 Nm is a CE mark pass.

Class 1 >4Nm  
Class 2 >10Nm  
Class 3 >20Nm



### Gloss Value

Rating is a 'Gloss Unit' measured on an Optical Glossmeter.

Matt 0-10%,  
Low Sheen 10-25%,  
Eggshell 26-40%,  
Semi-Gloss 41-69%, Gloss  
70-85%, High Gloss +85%



### Scratch Resistance ISO 4586-2

Scratch resistance is measured using a Sclerometer and the resistance is measured in Newtons. 1N is the lowest resistance, 20N the highest.

1N —————> 20N  
Lowest —————> Highest



### Chemical Resistance

Results shown are for tests with commonly used chemicals. Advice can be given for chemicals not listed here.

**Chemi-Coat® Acid Strength**  
**Rating Key (at 25°C):**  
**0 = No Effect**  
**1 = Stains/Dulls**  
**2 = Blisters**  
**3 = Lifts Film**

25% Sulphuric Acid, White Spirit, 20% Phosphoric Acid, Bleach, 10% Citric Acid, 20% Ammonia, 20% Caustic Soda, Anti Freeze, Sugar Solutions, Mineral Oil, 10% Oxalic Acid, Detergents, 5% Acetic Acid, Methylated Spirits. Avoid permanent immersion.  
Acetic Acid 98% (0-1), Ammonia 28% (0), Brake Fluid (0), Calcium Chloride 10% (0), Diesel (0), Formic Acid 38% (1), Petrol (0), Hydrochloric Acid 37% (0), Hydrofluoric Acid 48% (0-1), Nitric Acid 30% (1), Phosphoric Acid 25% (1), Sulphuric Acid 98% (0-1), Xylene (0), Skydrol (0-1)



### Adhesion Test ISO 2409

Cross-Cut Test method. Class 0 is highest adhesion, Class 5 is lowest.

Class:  
5 —> 4 —> 3 —> 2 —> 1 —> 0  
Lowest —————> Highest



### Adhesion Test EN 1542

Adhesion is expressed in MegaPascals(MPa) or Newton millimetres squared(Nmm2). Greater than 2 MPa is a CE mark pass.

>2MPa (Nmm<sup>2</sup>)  
= test pass



### Water Permeability EN 1062-3

To achieve a CE mark, the measurement must be less than 0.1 kg/m2(24 h)0.5

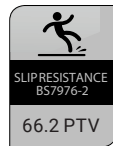
CE Marking Critical Value:  
< 0.1kg/m<sup>2</sup>/(24 h)0.5  
W<sub>1</sub> —————> W<sub>2</sub> —————> W<sub>3</sub>  
Lowest —————> Highest



### Wolff-Wilborn Hardness Test

Also known as the 'pencil test', a 9H reading is the measure of a hardest coating, HB is the softest.

HB —————> 9H  
Least Hard —————> Hardest



### Slip Resistance BS7976-2

**(Anti Slip version only)**  
The Pendulum Test Value (PTV) is measured in wet conditions. A number above 36 indicates a 'low slip potential'.

High: 0-24 PTV  
Moderate: 25-35 PTV  
Low: 36+ PTV

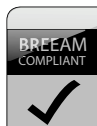
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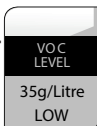
## Standard Compliance



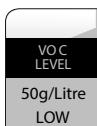
**EN 1504-2**  
 This mark indicates that a coating has passed all the tests required to carry a CE mark.



**BREEAM COMPLIANT**  
 (for refurbishment)



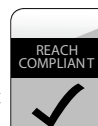
**VOC LEVEL**  
 Standard Anti Slip Cold cure Acid Strength



**VOC LEVEL**  
 Rapid



**ISO 16000**  
 The 'Loi Grenelle' measurement of the effect of a product's VOC level within a building. A+ is the top safety rating.



**REACH COMPLIANT**