watco®

Resiflow
Resiflow Chemical Grade

A one coat, self-levelling epoxy resin finish that leaves a smooth, 'showroom' high gloss surface



Watco has developed a highly advanced formulation that puts Resiflow into a class of its own. This one coat, high build, self-levelling epoxy resin finish leaves a smooth, exceptionally high gloss surface, which is both attractive and easy to keep clean. This high performance formulation is usually applied at 1 - 2mm thick but can be applied up to 5mm in one application. It is our ultimate floor covering for durability and appearance. Resiflow & Resiflow Chemical Grade can be over coated with our anti slip Epoxicote High Build and Chemi-Coat ranges, for a safer textured finish. Resiflow has very good general chemical resistance but this has been enhanced to 'Excellent' for Resiflow Chemical Grade.
Both grades have impressive test results for hardness, abrasion, scratch and impact resistance, as well as for adhesion and flexibility They have an A+ VOC emissions rating with a low level of VOC.



Colours

Light Grey

Mid Grey

Tile samples are available on request.
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:

- Workshops
- Reception areas
- Production Areas
- Showrooms
- Clean rooms
- Chemical storage areas (Resiflow Chemical Grade)
- Switchgear and plant rooms
- Warehouses
- Food & pharmaceutical – processing, storage and laboratory areas

Features:

- High gloss, high performance, high build epoxy resin self-levelling floor finish
- Superior wear and abrasion resistance
- Can be applied up to 5mm thick
- Extremely easy to keep clean
- Excellent resistance to oils and general chemical spillages
- Resiflow Chemical Grade has exceptional resistance to aggressive chemicals
- Perfect for floors where high levels of hygiene are important
- Low odour – safe to use in confined spaces

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 **Resiflow.**

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

Watco UK Ltd, Eastgate Court, 195-205 High Street, Guildford, Surrey, GU1 3AW
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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 the surface to dry. For the removal of heavier deposits of oil and grease we recommend Watco Concroff®. If used, 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 this 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. Watco Concroff® is a very powerful degreaser for contaminated bare concrete, (do not use on a previously painted surface since it can soften paint).
Repairs – chips and small holes in concrete can be quickly repaired using Watco Concrex® Fine Filler. Concrex Carbon Fibre can be used for isolated bigger holes and damage. If the concrete has a generally rough surface, it would be more economical to first resurface it with Watco Flowtop® rather than trying to achieve a smooth surface with layers of Resiflow.
Priming – use Watco 4 Hour Epoxy Primer on open textured or very porous high suction surfaces (such as sand and cement screed). This provides a uniform finish and prevents 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 Resiflow 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 – Please contact our Technical Department for advice.

2 Mixing

Remove all three components from the outer bucket. Stir the contents of the coloured resin tin thoroughly, and then do the same for the clear curing agent,(scrape around the inside of the tins to remove any residue). Pour the resin into the outer bucket and use a mixing blade (available from Watco) fitted to a slow speed electric drill. Do not use a high speed drill as this will pull too much air into the mix and encourage air bubbles to form. Start to mix while slowly adding the curing agent. When thoroughly mixed, add the fine powder blend. Mix for 2 - 3 minutes until uniform in colour and consistency, ensuring that all material at the sides and base are thoroughly blended together. It is possible to hand mix small quantities but great care must be taken. The mixed components must be used immediately. To assist with mixing and application, we recommend 1 person to mix continuously, whilst the other gradually adds the powder blend.
Important - once the contents of the pack have been mixed, a chemical reaction takes place which creates heat. Therefore, the product should be used straight away.

3 Application

To watch our online video, please go to **watco.co.uk** Best results are obtained in warm (minimum of 15°C), dry conditions with good ventilation. Application on cold surfaces can reduce the product's ability to flow. Working in sections of approximately 5m^2, pour the mixed components onto the prepared surface in ribbons. Spread evenly to the desired depth of 1-2mm using a Watco Resiflow Applicator or similar notched trowel. The applicator has a built in depth guide which makes it easier to achieve the required thickness. The product will naturally self-level. Use a spiked roller to remove air bubbles and repeat a few minutes later and thereafter if air bubbles continue to form. Application within the 5m section needs to be completed within 15-20 minutes maximum. Do not spike roller after 20 minutes or track marks will be left on the surface. Spike rollering should extend into the previously applied section, but ensure that this has not hardened to such a degree that spiked rollering is not possible. If a knife cut in the wet surface heals quickly, the surface is still safe to roller. Spiked shoes (available from Watco) should be worn if you need to walk across the wet floor. 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

Composition	High build, high solids epoxy resin.
Number of Components	1 x curing agent, 1 x resin and 1 x fine powder blend.
Finish	Coloured, high gloss, smooth, self-levelling finish.
Primer Required	Yes. See section headed 'Surface preparation on P2..
Number of Coats	1
Dry Film Thickness	1 - 2mm.
Wet Film Thickness	1 - 2mm.
Usage Interior/Exterior	Interior.
Application Tools	Watco Resiflow Applicator and Spiked Roller (Spiked Shoes also available).
Minimum Application Temperature	Air temperature 15°C. Floor temperature 10°C.
Suitable For	Concrete, well bonded paint and some metal. The moisture content of concrete should be less than 75% RH.
Pack Size	20kg
Coverage	Approximately 10m^2 at 1mm thick and 5m^2 at 2mm thick (thicker applications can be made up to 5mm but this will result in reduced coverage).
Pot Life	25 minutes at 20°C.
Mix Ratio (by weight)	23 parts curing agent : 100 parts resin : 105 parts aggregate.
Cleaning Tools	It is not practical to clean applicators and they should be discarded after use.
Shelf Life	24 months in unopened containers.
Cleaning	Normal industrial cleaners – Watco Bio-D is ideal. Do not steam clean or subject to temperatures in excess of 60°C.
Storage	Between 15°C - 25°C for at least 8 hours prior to use. Do not allow to freeze.
Principle Limitations Please contact us regarding applications not described here.	Unsuitable for most self-levelling compounds; however certain self-levelling materials such as Watco Flowtop® are suitable – please ask for details. Unsuitable for asphalt. Do not apply to damp surfaces.

CURING TIME

	Recoat Time (if required)	Touch Dry	Light Traffic	Heavy Traffic	Full Chemical Resistance
10°C	16 hours	12 hours	24 hours	48 hours	7 days
20°C	16 hours	8 hours	16 hours	48 hours	7 days
30°C	12 hours	6 hours	16 hours	24 hours	7 days

Light Traffic: Foot, trolley, pallet truck, occasional forklift Heavy Traffic: Regular forklift, heavy footfall, parked vehicles

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Technical Data Sheet

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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



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



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



Flexibility ISO 1519

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

36mm → 2mm
Lowest → Highest



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



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%



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



Chemical Resistance

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

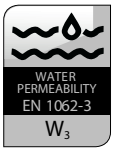
Petrol, Diesel, White Spirit, Bleach, Methylated Spirit, Oil, 20% Ammonia, Anti-Freeze, 5% Citric Acid, Detergents, 20% Caustic Soda, Sugar Solutions, Mineral Hydraulic Oil.



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^2)
= test pass

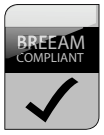


Water Permeability EN 1062-3

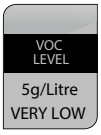
To achieve a CE mark, the measurement must be less than 0.1 kg/m2(24 h)0.5

CE Marking Critical Value:
< 0.1kg/m^2/(24 h)0.5
W_1 → W_2 → W_3
Lowest → Highest

Standard Compliance



BREEAM COMPLIANT
(for refurbisment)



VOC LEVEL



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

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