

watco GUIDE TO

FLOOR PREPARATION & PAINTING

PART ONE: PREPARING YOUR FLOORS

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1 | INTRODUCTION

The success of a well-maintained facility or building project is down to thorough planning, from logistics right through to floor painting. Without careful planning, preparation and informed product selection, you could end up with a poor floor finish which will probably mean more work for you in the long term as it will need to be made good.

Whether it's a large loading bay, warehouse facility, car park, small garage workshop, or anything in between, thorough preparation is vital, particularly if the floor is exposed to heavy traffic and regular spillages. If you're going to paint a new or existing floor, you need to make sure it's free from any contaminants such as grease, dirt, dust and oils. If you don't, the paint could peel, bubble or flake.

In this first part of our Essential Guide to Floor Preparation and Painting we'll take you through how to prepare the different types of flooring surfaces so that they are ready for painting.

Once your floor has been prepared properly, the second part of our Essential Guide explains the different types of floor paint and highlights some crucial dos and don'ts when it comes to applying paint, so that you can be sure of a professional, long-lasting finish every time.



2 | SIMPLE STEPS TO PREPARE YOUR FLOOR FOR PAINTING

All floors need to be washed and prepped properly before painting. In an ideal world, this would be a simple process involving two simple steps.

Firstly, clear the floor area and give it a good clean with a stiff broom. When sweeping and cleaning the floor, pay special attention to hard-to-reach corners and roller door tracks where dust and debris can build up over time. Scrape up any hard dirt and grease. For further information on how to deal with stubborn or extensive oil and grease stains, please refer to our "How to prepare a dirty or oily floor ready for painting" section on page 5.

Once all the stains and dirt have been removed, rinse and then completely dry the floor before preparing it with an etchant to key the surface so that the paint will adhere to it well. To achieve an even coverage when etching the surface, use a plastic watering can (with a rose spout) and wait for the solution to finish working before flushing the floor with clean water.

Unfortunately, preparing a floor is not always as straightforward. Not every oil spill can be cleaned easily and certain types of floors will require additional preparation to ensure a long-lasting and professional paint finish.

The following sections of this Essential Guide provide more detailed information on the different floor types.



HOW TO PREPARE A DIRTY OR OILY FLOOR READY FOR PAINTING

Sometimes all you need is a good sweep to prepare a floor ready for painting, but that's not always sufficient, especially in industrial environments such as warehouses or commercial garages and workshops where oil and grease spillages are common.

Light stains can be removed with a strong detergent and some good, old fashioned elbow grease. Larger spills, particularly oil, can be a problem as the oil can be absorbed into the floor's substrate. Naturally, it's best to clean oil and grease from a floor as soon as a spill/leak occurs, but this is not always possible.

So, the best way to remove unsightly stains is to use a degreaser that's powerful enough to break down and remove the grease.

WATCH OUT FOR:

Be careful about what products you use to remove stains as some contain chemicals that can be harmful if inhaled or come into contact with the skin. Always wear the recommended PPE when applying an industrial strength degreaser.

Whenever possible, make sure the area you're cleaning is properly ventilated.



Watco Bio D

Shop now



Cutting through dirt and grease

- · Powerful water based degreaser, gentle but strong.
- \bullet Low odour so ideal for odour sensitive or confined areas.
- · Bio-degradable.

Watco Etch & Clean

Shop now



Getting rid of dust and dirt

- Etches and removes loose particles
- · Contains degreaser to remove minor oil spots
- Neutralises excess alkalinity in new concrete

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HANDY TIP: Etch & Clean changes colour from pink to white/grey so you will easily see when it has reacted with the contaminant and cleaned the floor.

HOW TO PREPARE A NEW CONCRETE FLOOR READY FOR PAINTING

Many floors, particularly those in industrial and commercial environments need to be hard wearing as they are exposed to daily traffic from trolleys, forklift trucks and other vehicles. If the concrete floor is not protected it will start to dust, break up and wear down.

Painting a new concrete floor will help to protect the surface and it's also an ideal way to provide clearly demarcated routes to protect workers and pedestrians from vehicles in logistics centres and warehouses. However, it's important to remember that although your concrete is new, you can't paint it straight away.

Proper preparation is vital to ensure the adhesion and durability of your paint on a new concrete floor. The last thing you want is flaky and peeling paint so it's worth taking your time and making sure the concrete has been properly prepared before painting it.

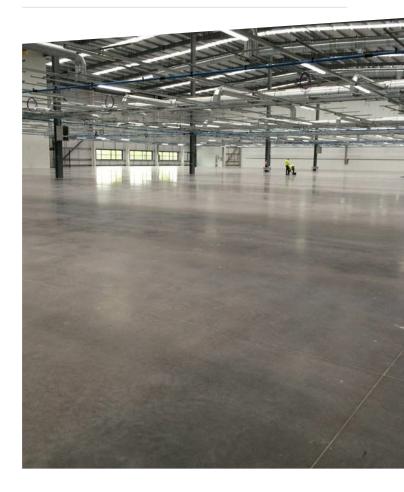
New concrete should be left to dry for around 4 weeks in the summer and 6 in the winter (based on reasonable drying conditions) to allow it to dry out completely after it's been poured.

Once the floor is dry, you need to mechanically abrade or etch the concrete for painting. Either option removes surface laitance and opens up the surface slightly so that the paint can bond properly with the surface. If you fail to provide a good key, the paint will not be able to penetrate the surface and will start to peel once it is exposed to regular traffic.

WATCH OUT FOR:

Laitance: surplus water and cement dust can rise to the surface during trowelling and curing to cause a white powdery residue called laitance. If you fail to remove the laitance by etching the concrete it will stop the paint from adhering properly and cause it to flake away when traffic such as forklifts pass over it.

Too much alkaline: new concrete floors are high in alkaline which can affect most types of single pack paints so the alkaline level needs to be reduced before painting.



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Watco Etch & Clean

For clean and fully prepared concrete

- · Removes laitance so paint can bond to the surface
- Reduces alkalinity to prevent failure or softening of single pack paints
- Etches concrete to provide a key so the coating can soak into the concrete



HANDY TIP: To tell the difference between laitance and dust, simply scrape the edge of a coin across the surface. If a fine powdery film is easily removed, it's laitance. If dust keeps coming up after a floor has been swept, that's another sign of laitance.

* If you are unable to wait for the wet concrete to dry properly, please refer to the "How to prepare damp/wet floors ready for painting" section for additional guidance.

HOW TO PREPARE A POWERFLOATED FLOOR READY FOR PAINTING



Powerfloated floors are a more common type of industrial floor as they are extremely hard, smooth and easy to maintain which makes them ideal for heavy traffic areas such as warehouses and showrooms. The finish is achieved by working freshly poured concrete and then power trowelling it to a smooth finish using a machine with rotating blades to produce a polished, dense surface.

While powerfloated floors are extremely durable and can easily withstand the weight of machinery and vehicles, the non-porous surface makes it difficult for paint to penetrate and bond properly.

Powerfloated concrete floors normally have to be shot blasted or ground to provide a key so that the paint will bond. These methods can be costly and will texture the concrete meaning that you will no longer have a nice smooth, polished surface.

A one coat primer specially formulated to be applied to powerfloat concrete will overcome the need for mechanical preparation and retain the original smooth, attractive powerfloated finish.

WATCH OUT FOR:

Many paint manufacturers recommend shot blasting to break the floor's surface but this can remove its hardwearing properties, making the floor unsuitable for heavy traffic environments.



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Watco Powerfloat Primer

Smooth concrete without mechanical preparation

- Enables coatings to be applied to hard, smooth surfaces which would usually reject paint.
- · Retains strength and the smooth, powerfloat finish.
- · Can be overcoated with most paints including our Epoxy Gloss Coat.

Please note: Whilst Powerfloat Primer avoids the use of mechanical preparation, diamond grinding or shot blasting does provide a better finish overall and is recommended. For smaller areas where mechanical abrasion is difficult Powerfloat Primer is a great back-up option.



Watco Epoxy Gloss Coat

Tough smooth epoxy paint for industrial environments

- Fast curing, two coats can be applied in a single day.
- · Compatible with water based primers so they can be applied in as little as 24 hours.
- Epoxy Gloss Coat has a smooth finish. If a hygienic finish is also required, see Epoxy Gloss Coat Hygeinic.
- · Available in 190 RAL colours.

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Watco Safety Coat

Tough anti slip epoxy paint for industrial environments

- · Fast curing, two coats can be applied in a single day.
- Compatible with water based primers so they can be applied in as little as 24 hours.
- Pre-blended aggregate makes it easy to create an even, finely textured finish.
- Safety Coat's unique circular anti slip beads will not catch on mops or floor wipes, making the surface exceptionally easy to clean.



HANDY TIP: If you want to apply a clear sealer to this type of floor, our specialist Powerfloat Sealer can be applied directly to the clean powerfloat floor surface.

HOW TO PREPARE PAINTED OR SEALED FLOORS READY FOR PAINTING

There will be occasions when you want to paint over an existing painted or even sealed floor. This is possible, as long as you prepare the floor before applying the additional coating. If you just go ahead and simply add another layer of paint to a floor that already has a coating on it, you will end up with an unsightly mess as the paint will simply stick to the old paint or sealant and then lift off once in use.

If the existing coating is still well bonded and has been naturally abraded through wear and tear, giving it a slightly dull finish, you can just paint straight over the top of it. However, if there are any sections that haven't been naturally dulled through wear and tear, simply abrade the gloss areas lightly around the edges.

Smooth, glossy, painted or sealed floors should be abraded using a power sander to dull the gloss and remove any areas that are not well bonded. By abrading the surface, you are providing a good key which enables the new coat of paint to bond and last.

Once the area has been abraded, wipe the surface to remove any dust. If the floor is dirty, it's best to clean it using a solvent-free degreaser that can easily cut through general dirt, grease and fat without discolouring or softening the existing paint.

WATCH OUT FOR:

We recommend you don't paint a floor that has been treated with a PVA sealer as it is not strong enough to provide a sound base.

Any poorly bonded paint should be removed. A previous coating may have bonded well in some areas, but it can be loose in others. This can be removed with a scraper, grinder or even vacuum shot blasting for large areas.



Watco Bio D

Shop now



Removing dirt even on painted floors

- Solvent free, bio-degradable degreaser.
- Gentle enough to use on painted floors without discolouring or softening the paint.
- · Low odour so can be used in confined spaces.

HANDY TIP: We don't use strong solvents in our coatings so you can use a Watco paint such as Watco Epoxy Gloss Coat, Safety Coat or even Epoxicote Hight Build for heavy traffic areas without worrying about a possible chemical reaction.

HOW TO PREPARE A ROUGH, UNEVEN FLOOR READY FOR PAINTING

When you paint a floor, you ideally want the surface to be smooth and even. Tamped, rough and uneven surfaces are a problem as the paint can sit on 'high spots' and will quickly wear off under traffic, resulting in you having to make good or even redo the surface sooner than you had planned to.

If you do need to paint a rough or uneven floor it is best to use a leveller to smooth the surface before painting it. As with any floor coating, always clean and prepare the surface first before pouring the leveller onto the surface and then smoothing it out.

Correct product selection is vital if you are going to use a leveller as some products, particularly latex levellers or underlayments, cannot be painted or used as a wearing surface. They are simply used to smooth the concrete ready for a vinyl, tile or wood surface to be laid.

If you want to paint a rough floor, then we recommend using a leveller that is fibre reinforced to make it stronger and to give it a more durable surface that is resistant to shocks and abrasions.

WATCH OUT FOR:

Only use latex levellers or underlayments to smooth a surface before applying a wearing surface. If you paint them, they will simply break and lift once the floor is used.



Shop now



Watco Flowtop

Resurface rough or damaged concrete

- Can be simply poured onto the rough, clean surface and easily smoothed out.
- Extremely durable, suitable for forklift truck traffic and general industrial use.
- · High strength at only 3mm thick.
- · Available in 5 colours.



HANDY TIP: If cost is a concern on your project, you can simply resurface the high traffic areas of the floor and leave the areas covered by racking or where there is low traffic passing over. If you then paint the whole area, sections that have been resurfaced will blend in.

HOW TO PREPARE A DAMP OR WET FLOOR READY FOR PAINTING

It might sound obvious but painting a damp or wet floor can be a challenge.

The floor could be damp simply because you have washed it in preparation for painting. Alternatively, the damp could be caused by the area being enclosed with little or no ventilation or because it's in a basement which is always cold, so the floor is not given a chance to dry out. It could even be due to rising damp. Whatever the reason, you need to try and remove as much of the damp as possible before painting the floor.

First, remove any standing water from the floor. If the amount of water is minimal then you could simply use something absorbent to 'mop' the water up, but for larger areas it is best to use a wet vacuum to remove it, followed by a dehumidifier. You can use heaters to draw the moisture out of a damp floor, but you would need to open doors and windows to allow the moisture to escape.

Where there is residual damp, always use a water based paint as these are designed to be compatible with the damp.

If the damp is because the concrete has been newly laid, it is always best to make sure the concrete is allowed to dry properly before painting (see page 7 "How to prepare a new concrete floor ready for painting" for further information).

WATCH OUT FOR:

If you suspect rising damp is being caused by the damp proof membrane failing, dry a small section of the floor and tape a plastic sheet (on all 4 sides) to it. If you see moisture beads under the sheet after 48 hours, Watco Specialist Epoxy Damp Proof Membrane can easily rectify the problem.



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Watco Epoxy Gloss Coat or Watco Safety Coat

Overcoming residual damp

- Both paints are fast drying and water based so are compatible with slight damp.
- Epoxy Gloss Coat is a tough paint ideal for heavy traffic areas including warehouses, production areas and workshops.
- · Safety Coat provides an easy clean, anti-slip finish.

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Watco Epoxy Damp Proof Membrane

Holds back rising damp on new or old concrete floors

- Use on concrete floors where a damp proof membrane has failed or was never installed.
- · Withstands 98% relative humidity.
- Effectively suppresses vapour and holds back damp.
- Suitable for heavy wear areas and can be overcoated after 16 hours with most types of floor coatings.

-

HANDY TIP: If time is against you, Watco's Specialist New Concrete Primer allows you to paint the floor and have it ready to use in just 10 days.

HOW TO PREPARE A SHOT BLASTED FLOOR READY FOR PAINTING

Shot blasting is a mechanical cleaning process, normally carried out by a specialist contractor, where metal 'beads' are shot at a high velocity onto the floor's surface to clean it. The dust and debris is then collected by the machine

Shot blasting is a quick and effective way to remove old coatings or dirt from concrete floors, particularly in large areas. The process takes the floor back to a bare, open textured, porous surface so it is best to use two coats of water based epoxy resin paint on the floor. The first coat will penetrate and prime the surface, while the second coat will provide the finish.

WATCH OUT FOR:

If you plan to use 100% solid, non-water based paint, the open textured, porous surface can cause small air bubbles to form in the paint. Make sure you prime the bare concrete first before over-coating with a suitable epoxy.



Shop now



Watco 4 Hour Epoxy Primer

Primed for painting

- Two part solvent free primer designed specifically to reduce suction on porous, absorbent surfaces.
- Better penetration, substrate binding and curing than traditional water based primers.
- · Prime and coat on the same day to cut down on labour costs and waiting time.

HANDY TIP: Shot blasting is an extremely economical way to remove paint from any area greater than 500m². However, it doesn't remove all types of paint such as polyurethanes or multiple layers. We can advise if shot blasting or another type of preparation is best for your flooring.

HOW TO PREPARE A WEAK POROUS FLOOR READY FOR PAINTING

Sand and cement screeds consist of sand, cement and water which makes them very porous. As a result, they tend to act as a sponge and will soak up the paint, making it appear patchy if you paint directly onto the screed. If you don't prepare the screed properly first, you will find that you have to apply multiple coats of paint in order to achieve an even finish.

A further consideration is that sand and cement screeds lack the strength of concrete which can result in the paint coating wearing prematurely as the surface weakens under traffic. It is the addition of aggregate to sand and cement mix which turns it into concrete, so, as the screed does not contain an aggregate, its properties are not as strong as concrete.

When selecting the paint for your porous floor, we recommend that you go for a two part epoxy primer that is designed to reduce the porosity of the screed and helps to strengthen and bind it together before coating it. The primer can then be overcoated with a suitable coating adding further strength and helping to prolong the appearance of the coating.

WATCH OUT FOR:

Concrete is porous by nature which means that most uncoated concrete floors are porous so if you apply a coat directly onto the screed without preparing it first, the paint can seem to disappear.



Shop now



Watco 4 Hour Epoxy Primer

Primed for painting

- Two part solvent free primer designed specifically to reduce the porosity.
- Strengthens and binds the screed before coating it.
- · Fast-drying so you can prime and coat in a single day.

-

HANDY TIP: You can overcoat our 4 Hour Epoxy Primer with any of our Watco coatings to ensure a strong, long-lasting finish.

3 | WHAT NEXT?





VISIT OUR WEBSITE

So now you understand the different types of floor paints and where they should be applied. If you want further information on floor preparation, please visit the "Help & Advice" section on our website

SPEAK TO AN EXPERT

Contact our expert advisors using the details below:

Email: sales@watco.ie Telephone: 01 6725 180 Live Chat: watco.ie

Go to website

Contact us

Don't forget to look out for the second part of this Essential Guide to Floor Preparation and Painting where we cover the different types of floor paints that we offer and outline some important dos and don'ts when it comes to applying floor paint.