

A person is cleaning a floor with a mop and bucket. The person is wearing a white long-sleeved shirt, white pants, and white sneakers. The floor is a light-colored, possibly polymer, material. The background is a solid light blue color.

cleaning & maintenance

a guide to cleaning
vebro's polymer
flooring systems

vebro polymers

cleaning & maintenance of vebro's polymer flooring

Generally speaking, polymer flooring delivers a durable surface underfoot, combined with a host of other performance characteristics dependent on the technology and specification.

Invariably, these performance benefits are also dependent on suitable upkeep, including a cleaning regime that not only maintains hygiene and cleanliness, but that is appropriate for the type of polymer flooring installed.

In this guide, we've outlined the optimum cleaning & maintenance schedules for a range of polymer flooring technologies, but as each floor is unique in its installation environment and service criteria, it is important to identify the ideal cleaning regime for your specific project.

why implement a suitable cleaning regime?

There are many reasons why maintaining an appropriate cleaning schedule is imperative in both commercial and industrial facilities, including those listed here.

cost

Although there is a cost associated with keeping floors clean and maintained, this is likely to be considerably less over time than the installation of a new floor system should the lack of upkeep result in aesthetic or critical damage.

hygiene

It goes without saying that a clean floor is much more likely to be a hygienic floor. This is critical in areas where consumables are produced, processed or sold.

According to the Food Standards Agency*, between January and June 2020 there were food product recalls from manufacturers and supermarkets including Co-op, John West, Waitrose & Partners related to potential contamination of Salmonella, E-coli, Listeria monocytogenes, Clostridium botulinum and others.

Maintaining an effective, properly documented cleaning schedule will help to ensure that food production and processing facilities are in line with food safety protocols such as HACCP.

*Food Standards Agency. Food Safety & Hygiene Alerts. Website. <https://www.food.gov.uk/news-alerts/search/alerts>

appearance

Daily abuses such as foot traffic or spillages can have a lasting effect on the aesthetics of any floor covering, particularly if not dealt with in a timely manner.

Dust and other small dirt particles can also act as an abrasive against the floor surface, especially if left for people to walk over for long periods of time.

What's more, extended exposure to certain cleaning agents can contribute to damaging the polymer floor surface.

Maintaining an effective cleaning regime — including choosing the appropriate cleaning agents and ad-hoc spot cleaning for harmful, corrosive or staining substances — will help to keep polymer flooring looking its best for the duration of its installation.

durability

Believe it or not, some substances — including certain cleaning agents if not used according to the manufacturer's instructions — can have a long-term damaging effect on the structure of certain polymer floor coating materials, reducing their durability and potentially leading to cracks, spalling and degradation.

Just as dust and debris in more commercial environments can result in scuffs and scrapes, affecting the aesthetic of the finish, they can also contribute to deep markings and scratches which impact the floor's performance. The floor surface in industrial environments, for example, could be faced with metal shavings and other extremely abrasive debris, which should be cleared away before it has chance to do long-term damage.

Effective upkeep and using the appropriate cleaning agents will help to maintain the performance of polymer flooring solutions.

slip resistance

The presence of dirt, dust and greasy contaminants on the surface of the floor can contribute to slip risk, so it's important to keep flooring clean and free from these hazards — including any residual cleaning agents! Textured floor finishes can present their own challenges here, as there are more nooks and crannies in which bacteria can reside, so not only can they prove more difficult to clean, they can also be a little more stubborn than their smoother counterparts in hanging onto the cleaning agents.

This highlights why there is no one-size-fits-all approach to cleaning polymer flooring, and why choosing the appropriate solution for each floor is critical.

static control

Part of the appropriate cleaning regime for ESD polymer flooring should be regular routine tests to ensure the consistency of static control. The frequency and type of test should be agreed before installation.

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what else can be done?

There are a number of preventative measures that can be put in place to help protect the floor surfaced from dirt, debris and soiling in the first place.

drainage

Floors should be designed so that any water or other liquids present on the floor are quickly and safely removed. A self-draining gradient of 1:80, or to the drainage point in the order of 1–1.5% will prevent the build-up water on the floor surface.

drip trays

Laying floors to fall towards drip trays can help to collect run off from wet processes as well as washdowns. Floor drain capacity must be adequate for the intended application.

entrance matting

Entrance matting installed at entryways can help to prevent dirt from outside being brought in on shoes, keeping floors cleaner.

rubber mats

In industrial areas, rubber mats in areas prone to becoming dirty can prevent abrasion from dust and debris. What's more, they will help to protect against impact from dropped tools.

what do i need to clean a polymer floor?

According to FeRFA, there are four components which can be used in various combinations to form a full cleaning regime.

mechanical cleaning

Mechanical cleaning is any physical act that removes dust, dirt, debris or soiling, without adding any heat, chemicals or cleaning agents. This includes — among others — scrubbing, scraping, sweeping, dusting or jet washing (typically for thicker resin flooring such as FeRFA Type 8).

chemical cleaning

Cleaning agents or detergents, used in accordance with the manufacturer's instructions, can help to break down any stubborn soiling, making it easier to remove. This is then rinsed using clean water to remove any residual dirt and cleaning agent.

Although most special purpose cleaning agents are suited to resin flooring materials, it is advised that a before using a new cleaning agent on a polymer floor coating a spot test should be carried out in an inconspicuous area to ensure no damage or discolouration is caused.

thermal cleaning

Often, increasing the temperature enhances the efficacy of cleaning agents and the solubility of some soils, making them even easier to remove.

Different types of polymer floor coatings have varying maximum temperatures they can be exposed to, so it's important to factor this in when preparing a cleaning regime.

time

Each of the above cleaning methods can usually be more effective over a longer duration. There is often a higher limit on the amount of time that a cleaning agent can be left on the surface of the floor, so care must be taken to avoid damage by leaving detergents to sit for too long.

cleaning care by floor type

FeRFA Type	Name	Description	Duty	Typical Thickness	Typical Cleaning
1	Floor seal	Applied in two or more coats. Generally solvent or water borne.	L	< 150 µm	Wash & vacuum dry
2	Floor coating	Applied in two or more coats. Generally solvent free.	L M	150 — 300 µm	Wash & vacuum dry
3	High build floor coating	Applied in two or more coats. Generally solvent free.	M	300 — 1000 µm	Mechanical scrubber / dryer satisfactory but not with regular use of abrasive pads
4	Multi-layer flooring	Aggregate dressed systems based on multiple layers of floor coatings or flow-applied floorings, often described as 'sandwich' system.	M H	> 2.0 mm	Rotary brush / vacuum machine
5	Flow applied flooring	Often referred to as 'self-smoothing' or 'self-levelling' flooring and having a smooth surface	M H	2.0 — 3.0 mm	Gloss: Wash & vacuum Matt: Scrubber / dryer
6	Resin screed flooring	Trowel-finished, heavily filled systems, generally incorporating a surface seal coat to minimise porosity.	M H	> 4.0 mm	Scrubber / dryer
7	Heavy duty flowable flooring	Having a smooth surface.	H VH	4.0 — 6.0 mm	Scrubber / dryer
8	Heavy duty resin flooring	Trowel-finished, aggregate filled systems effectively impervious throughout their thickness.	VH	> 6.0 mm	High pressure washer or scrubber / dryer

L Light duty	M Medium duty	H Heavy duty	VH Very heavy duty
Light foot traffic, occasional rubber tyre vehicles.	Regular foot traffic, frequent forklift truck traffic, occasional hard plastic-wheeled trolleys.	Constant forklift truck traffic, hard plastic wheeled trolleys, some impact.	Severe heavily loaded traffic and impact.

Table 1: Cleaning Care by Floor Type. FeRFA The Resin Flooring Association. Guide to Cleaning Resin Floors. PDF file. First Published: 2006 (Revised March 2020). <https://www.ferfa.org.uk/wp-content/uploads/2020/03/FeRFA-Guide-to-Cleaning-Resin-Floors.pdf>.

cleaning Vebro Polymers' flooring

Product	Typical Cleaning	Sweep	Mop / wash	Spot Mop	Dry Buff	Spray Buff	Scrub & Wet Vac	Apply Polish	Strip & Seal
Smooth epoxy & polyurethane systems	Wash & vacuum dry	D	D	!	-	3	M	M	6
Epoxy & polyurethane quartz systems	Rotary brush / vacuum machine	D	D	!	2	3	M	M	6
Smooth PU concrete systems	High pressure washer or scrubber / dryer	D	D	!	-	3	M	M	6
Textured PU concrete systems	High pressure washer or scrubber / dryer	D	D	!	-	-	-	-	-
Smooth ESD systems	Rotary brush / vacuum machine	D	D	!	-	3	M	M	6
Textured ESD systems	Scrubber / dryer	D	D	!	2	3	M	M	6
Outdoor stone systems*	Sweep & wash	W	M	-	-	-	-	-	-
Outdoor rubber crumb systems*	Sweep & wash	W	M	-	-	-	-	-	-

D Daily
 W Weekly
 3 3 weekly
 M Monthly
 2 2 monthly
 6 6 monthly
 ! As needed

Any cleaning agents or buffer pads should be checked to ensure their suitability for the specific flooring installed. *If sweeping and washing proves insufficient to remove soiling, outdoor stone and rubber crumb systems can be power washed, provided a low pressure is used.

cleaning vebrodeck systems

Multi-storey car park deck waterproofing and wearing surfaces are subject to a range of substances including dirt, rainwater and de-icing salts and require a cleaning regime suited to each.

cleaning schedule

To avoid hazards occurring as a result of contaminants on the surface of the floor, an ongoing regular cleaning regime should be employed alongside ad-hoc treatment of local spillages.

The size of the car park structure will determine the most appropriate scrubbing method, whether manual or mechanical.

The density, abrasiveness or firmness of brushes or cleaning pads are dependent on the both specification of the floor surface, as well as the level of soiling.

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suitable chemicals

The type of cleaning agents required will depend on the type and level of soiling.

While a pH 7 neutral or mildly alkaline detergent is usually recommended, any new cleaning agent should be spot tested in an inconspicuous area to ensure compatibility.

For fast cure MMA systems, ammonia or ammonium chloride in high concentrations can cause yellow or brown discolouration while extended exposure to highly concentrated hypochlorite, formaldehyde or hydrogen peroxide based agents can cause red discolouration in MMA systems.

Exposure to alcohol based agents for extended periods of time can cause long term damage and discolouration to MMA systems and aromatic or halogenated hydrocarbons must not be used.

power washing

vebrodeck systems are suitable for power washing, although it is advised that a moderate pressure is used and that the temperature does not exceed 50°C.

cleaning tyre marks

Markings left by rubber tyres often require specialist cleaners. Spot testing should be carried out to avoid causing damage to the surface of the car park deck coating system.

removal of chewing gum

Chewing gum can be removed with a combination of freezing (using proprietary dry ice chewing gum removers) and mechanical scrubbing or scraping, taking care to avoid scratching or puncturing the deck surface.

As with any new cleaning agent, manufacturer instructions should always be followed and a spot test carried out.

protection in low temperatures

It is recommended that non-aggressive alternatives to traditional de-icing salts, such as potassium acetate based agents, are used to avoid long term damage to the surface of the deck coating system.

Snow ploughs should be fitted with rubber blades to avoid the damage associated with metal plough blades.

need further advice?

While we hope this guide will help to provide some initial guidance, cleaning regimes should be developed dependent on the floor surface and service criteria. For further advice, contact our Technical Services team on technical@vebropolymers.com

vebro polymers

for chemistry you can count on...

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Please note: Vebro Polymers accepts no responsibility for liability claims based on the suggested practices and guidance included in this guide. It is the user's responsibility to ensure that any cleaning regimes employed are appropriate for the floor surface, through spot testing of any new cleaning agents or practices in an inconspicuous area. For more information contact technical@vebropolymers.com

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