

food & beverage processing flooring guide

a big **hello** from vebro

Vebro Polymers is a supplier of polymer flooring, specialist coatings, pump screeds, rapid-drying screed additives and car park deck wearing solutions. Our products and systems have been expertly designed for use in a wide variety of applications including...



We can also provide specialist materials for use on fast turnaround new-build or refurbishment projects as well as those requiring subfloor preparation prior to the installation of final finishes.

our big promise



Vebro Polymers has been formed by like-minded individuals who — at the time — had over 200 years' combined experience in the polymer flooring, coatings and construction chemicals industry.

The company was founded on a simple service promise to customers, which aims to provide the best quality, agility and reliability in the industry.

vebropolymers.com

peace of mind throughout your project

Vebro Polymers is proud to work with a select group of applicator partners in its local territories — a network of approved specialist resin flooring contractors who we're confident will follow the appropriate preparation and application methods to deliver a fit-for-purpose, long-lasting floor in your facility.

global team, local expertise

Founded in the UK, Vebro Polymers has grown to serve local markets across the world. For local contact information, visit vebropolymers.com

our STAR+ approach

The team at Vebro Polymers are committed, right from the beginning of your flooring project through to aftercare. We work closely with our applicator partners to deliver on all the key stages of your project.



site survey & specification

Before any flooring works begin on site, the Vebro team, or one of our partners, will visit the site to complete a detailed and thorough site survey. This will allow our technical experts to produce a bespoke flooring specification that not only delivers on your specific service criteria, but also takes into consideration the substrate, condition, budget and construction schedules.



tracking

The team at Vebro understands the importance of each key stage in flooring application. That's why we work closely with our applicator partners throughout each project to ensure that every stage is delivered to the highest of standards.



application

At Vebro Polymers, we only work with experienced, trusted applicator partners and we're confident in their ability to install a fit-for-purpose floor coating system that meets the service criteria of your facility.



review

Once the floor is installed on site, our team will ensure everything is completed to our high standards and, all packaging waste is correctly disposed of in line with government regulations and the floor is turned over to the client or follow-on trades.



+aftercare

Floor maintenance requirements will differ depending on your specific environment, the type of floor installed and how it is used each day. We work alongside our applicator partners to share with you the best practice for keeping your floor in top condition.

polymer flooring explained

what is polymer flooring?

Polymerisation is, in short, a chemical reaction between multiple components to create a polymer.

Although the components of a polymer floor are primarily liquid (other than added decorative flakes, filler aggregates, texturing sand or anti-slip quartz beads), the chemical reaction results in a hard, durable surface.

There are different types of polymer flooring, each with its own unique performance characteristics.

Technology	Best for...
Epoxy	Applications where durability and chemical resistance are required
Polyurethane	Applications where elasticity, impact resistance and UV stability are required
Polyurethane Concrete	Heavy-duty applications and areas of thermal shock
Comfort PU Liquid Vinyl	Commercial applications where design and improved indoor environmental quality are of high importance
Methyl Methacrylate (MMA)	Speedy applications, where a quick turnaround is required

how is polymer flooring installed?

The first, and arguably most important, step in the installation of a resin floor system is preparation. The applicator will ensure that the substrate is smooth, level and free of contaminants like dust, oils or grease that may affect the integrity of the final finish.

Once the substrate is ready, resin flooring materials are installed by experienced applicators in layers. Depending on the type of floor system being installed, this process often starts with a primer layer, then body coats and sealers where necessary, ensuring each coat has cured to the appropriate degree before moving on to the next.

benefits of seamless resin vs. alternative floor finishes



Seamless impervious finish, prevents the build-up of dirt in grout lines or at trims



Hardwearing and durable to withstand the impact and traffic associated with heavy-duty processing environments



Easy to clean & maintain hygiene, simply wipe away spillages with a damp cloth or mop



Tailored anti-slip profiles to aid safety across the facility, without compromising cleaning requirements



Temperature resistance as high as 130°C and good resistance to thermal cycling



Wide range of finishes available to suit every area throughout the food & beverage processing facility

flooring for food processing

frequently asked questions

Choosing protective flooring for food & beverage processing environments is far more complicated than just finding the cheapest coating product – or even worse – leaving the concrete uncoated!

Several other factors including durability, safety, resistance profile and cleanability as well as the cost, will all play a factor in influencing your decision.

To make it easier, we've compiled some of the key FAQs that will help to determine if resin flooring is the right choice for you and your food processing facility.

How often do resin floor coatings require repair & maintenance?

Resins are seamless in nature and don't include joints or grout lines, which are susceptible to harbouring dirt, grease, bacteria and stains in general. Dust and crumbs can simply be swept or hoovered away and the floor cleaned according to manufacturer's guidelines based on the surface profile of the floor.

Resin flooring is also extremely strong and durable, meaning that it has an extended service life compared to other floor coverings. Installed properly, and with the correct maintenance, it can last for years without cracking or peeling, meaning that you won't have to replace the floor or carry out repairs as frequently than you would if using other materials.

How can resin flooring help to protect against slips and trips?

Slips and trips are one of the most common accidents that occur in the workplace, and one of the reasons for this can be unsuitable floor coverings. With a staff body to protect, it is important to consider this when choosing a floor finish, as well as the service criteria that a floor will be subject to.

For example, areas subject to either wet processes, frequent spillages or those that employ rigorous cleaning regimes such as steam cleaning or hot water downs should take particular care to ensure an anti-slip finish when replacing floor coverings or coatings.

Liquid-applied resin floor systems are great to custom build any safety features that you require from your floor within your workspace, surface profiles can be tailored to include quartz, aluminium oxide, glass spheres or silicon carbide in order to enhance the slip resistance profile of the floor finish.

Is resin flooring durable enough for food processing facilities?

Food & beverage processing environments are often subject to heavy loads, equipment and machinery as well as rubber-wheeled forklift truck traffic and other punishing processes.

As a result, durability in a flooring material is often critical to avoid the risk of floor failure or the surface wearing far too soon and having the headache of having to replace it all over again!

Polyurethane concrete surfaces have a longer lifespan compared to most other flooring solutions and are highly resistant to impact and heavy-duty wear and tear.

Is resin flooring chemical resistant?

Epoxy, polyurethane, MMA and polyurethane concrete all exhibit good resistance to a range of chemicals associated with cleaning agents or foodstuffs.

For more aggressive chemicals or food & beverages ingredients such as hydrochloric acid, sugars, oils, blood and detergents, heavy-duty polyurethane concrete provides a resistant surface underfoot.

That said, not all chemicals are created equal, so it's important to check that your choice of flooring material will be suitable for the specific chemicals found in your processes or facility.

How does resin flooring stand up extremely low and high temperatures?

With an upper temperature resistance ranging between around 60°C for thinner systems and up to 130°C for those applied between 6.0 mm and 9.0 mm thick, polyurethane concrete can reliably resist hot water washdowns.

For areas facing lower temperatures, such as refrigerators and freezer storage, polyurethane concrete systems are capable of withstanding temperatures below freezing.

Although epoxy, polyurethane and MMA floor systems are able to cope with moderate temperature swings, they are not recommended for processing areas where freezing or boiling conditions are expected.

Are resin floors expensive?

Resin flooring can sometimes be more expensive in the short term than using other materials, this can be as a result of a potential increased cost of materials as well as the outlay for specialist trained resin contractors to install the product, but its durability alone makes it an extremely cost-effective option, as you won't need to replace it for many years.

And, when you take into account other savings that you can generate as a result of selecting resin flooring, such as reduced maintenance, cleaning and energy costs, it makes sense that an investment now will continue to pay dividends in the long term too!

food & beverage floor systems guide



From polyurethane floor screeds for processing areas, through to epoxy and MMA floor coating systems for back of house and warehousing spaces, Vebro Polymers offers a complete range of resin flooring materials for food & beverage production and processing facilities.

Vebro Polymers' range of epoxy, polyurethane and MMA flooring and deck coating systems are available in a wide range of standard, non-standard and premium colours. For your copy of the Vebro Polymers Colour Bible, visit vebro polymers.com.

what does it all mean?

Throughout this floor system guide, you will see a number of icons relating to the installation and performance features of each system recommended for food & beverage production and processing facilities. Here's what they all mean...

Application thickness	FeRFA type	Working time	Time before light foot traffic	Full chemical curing time at 20°C

technically speaking...

Looking for technical information? Full technical profiles can be found in Vebro Polymers' technical datasheets.

For the most recent technical datasheets and standard system specifications, please visit www.vebro polymers.com

polyurethane floor screeds

Performance criteria	vebrocrete SL	vebrocrete MF	vebrocrete SR	vebrocrete HF	vebrocrete RT
Best for...	Dry processing		Wet & dry processing	Wet processing & cold storage	
Thickness	2.0 – 3.0 mm	4.0 – 6.0 mm		6.0 – 9.0 mm	
Finish					
Temperature resistance	Resistant to cleaning up to 60°C at a minimum of 3.0 mm	Resistant to cleaning up to 60°C at a minimum of 4.0 mm	Resistant to cleaning up to 60°C at a minimum of 3.0 mm	Resistant to spillages up to 70°C at 6.0 mm. Resistant to spillages up to 120°C. Fully steam cleanable at 9.0 mm.*	
Slip resistance BS 7976-2: Pendulum Slip Test	≥ 60 dry		≥ 40 wet (0.7 – 1.2 mm aggregate) ≥ 45 wet (1.2 – 1.8 mm aggregate) ≥ 50 wet (1.0 – 3.0 mm aggregate)	≥ 55 dry ≥ 40 wet	
Chemical resistance	Resistant to a very wide range of aggressive chemicals and corrosive by-products. For a full chemical resistance breakdown contact our Technical Services team.				
Abrasion Resistance EN 13892-4 BS 8204-2	AR 0.5 Special Class	-	-	-	-
Shore D hardness	75		-	-	-
Adhesion EN 1504-2	> 1.5 MPa				
Water absorption	-	-	-	0 litre / m ²	
VOC content EU Directive 2004/42/EC	< 10 g/l Category J Type SB (< 500 g/l)			< 12 g/l Category J Type SB (< 500 g/l)	
Working time	~15 minutes**				
Speed of cure At 20°C	Light Foot Traffic – 12 hours Light Wheeled Traffic – 24 hours Heavy Duty Traffic – 48 hours Full Chemical Cure – 7 days				

The typical physical properties given above are derived from testing in a controlled laboratory environment at 20°C. Results derived from testing field applied samples may vary dependent upon site conditions. The slip resistance figures given above are affected by application techniques and prevailing site conditions. Slip resistance can reduce over time due to poor maintenance, general wear or surface contaminants. Good housekeeping practices should be observed. *If subject to frequent thermal shock and cycling, a good quality substrate is essential. **Usable working life of material following mixing and immediate spreading as per the application instructions.

polyurethane screeds colours

vebrocrete systems are available in a range of standard colours, ideally suited to food & beverage production and processing facilities.

Ⓡ textured finish



Ⓢ smooth finish



epoxy floor coating systems

vebrores EP HBC

- 1 vebro EP Primer
- 2 vebro EP Universal (2 coats)



best for warehousing, wet & dry processing

0.35 mm ~20 mins 16 hrs 7 days

vebrores EP SL

- 1 vebro EP Primer (2 coats)
- 2 vebro EP SL



best for warehousing & corridors

2.0 – 4.0 mm ~60 mins 16 hrs 7 days

looking for colours?

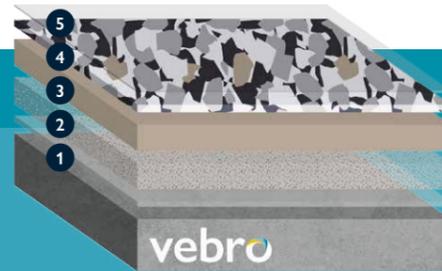
vebrores systems are available in a range of Standard, Non-Standard and Premium colours. For more information, visit vebro polymers.com

fast cure MMA floor coating systems

vebro speed Flake

vebro speed Flake is a highly decorative and durable UV-stable flooring system based on ultra fast-curing MMA (methyl methacrylate) resin technology.

Please note: Coving is available.



- 1 vebro MMA Primer
- 2 vebro Natural Quartz
- 3 vebro MMA Binder with vebro MMA Pigment & vebro MMA Filler
- 4 vebro Coloured Flake Blends
- 5 vebro MMA Seal (Clear Silk)



best for offices, canteens & corridors

2.0 – 4.0 mm



1 hr

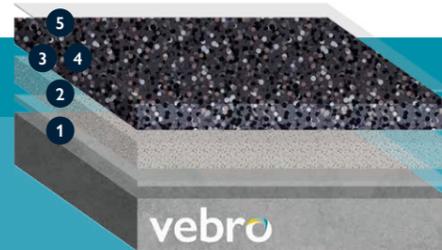


2–3 hrs

vebro speed Quartz

vebro speed Quartz is a highly durable and slip resistant, UV-stable quartz flooring system based on fast-cure MMA (methyl methacrylate) technology.

Please note: vebro speed Quartz can be modified for wet processing and trafficable surface wet areas as vebro speed Quartz SR. Coving is available.



- 1 vebro MMA Primer
- 2 vebro Coloured Quartz Blends
- 3 vebro MMA Binder
- 4 vebro Coloured Quartz Blends
- 5 vebro MMA Seal (Clear Silk)



best for wet & dry processing, WC, changing areas & corridors

4.0 mm



1 hr



2–3 hrs

fast cure MMA deck coatings & demarcation

vebro deck MMA ID

vebro deck MMA ID is a fast-cure, OS8 certified, methyl-methacrylate decking system ideal for use in wet & dry processing, as well as loading bays.



- 1 vebro deck MMA Metal / Ceramic Primer with vebro MMA Filler
- 2 vebro Natural Quartz
- 3 vebro deck MMA Topcoat



best for wet & dry processing, loading bays

2.0 mm



45 mins



90 mins

vebro deck MMA Linemarker

vebro deck MMA Linemarker is a pigmented, roller applied linemarker for use in conjunction with vebro deck MMA coating systems.



- 1 vebro deck MMA Linemarker



best for loading bays

0.5 mm



~15 mins



~30 mins

looking for a different colour?

vebro deck and vebro speed systems are available in custom colours! For more information, visit vebro polymers.com

The background of the top half of the page is a solid yellow color. A diagonal line runs from the bottom left towards the middle right, separating the yellow from a teal-colored triangular area on the left. The bottom half of the page is white.

vebro polymers.com

Please note: the information in this guide is subject to change and the most recent technical data should be sought for accurate, up-to-date product or system information. Errors & omissions excepted. The applied colours may differ from the examples shown within this guide. Actual samples should always be viewed before making a final decision, especially if colour accuracy or matching is key to your decision.

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