



Questions and Answers about resin floor coatings

Do I need a primer?

A: Primers are designed to perform three main tasks; seal the substrate to reduce penetration and air release from concrete pores and pin-holes, consolidate and strengthen an otherwise weak or dusty substrate and to improve adhesion of the flooring system. A floor seal or coating (types 1, 2, 3 and possibly 4) can often act as its own primer, two coats usually providing the full system. Flow applied flooring (types 5 and 7) for example benefit from the use of a primer (double priming in some cases) by sealing small air pockets in the concrete base due to pores and pin-holes and therefore reducing the risk of these bubbles rising to the surface and spoiling the smooth, impervious finish which is the ultimate goal. Resin screeds (Type 6) tend to be dry mixes which are almost impossible to apply and compact satisfactorily unless the material is applied into a tacky primer or one that has been 'seeded' with a material like dry silica sand. Even the heavy duty type 8 flooring will normally benefit from a primer by reducing pin-holes and increasing adhesion.

Primers also serve to seal contaminated substrates, again increasing adhesion and prevent contaminants damaging and de-bonding the whole system. Special primers are available to deal with problems such as oil contamination and damp substrates. Their use, (especially that of damp proof membranes) will be dictated by the quality of the substrate. If in doubt, contact the manufacturer for further information.

I have just had a PU screed installed and noticed that the flint aggregate is becoming more visible.

A Type 8 polyurethane screed is a heavy duty floor, highly recommended for food processing areas. This type of resin screed is heavily filled and resin rich, a characteristic of which is the appearance of the flint aggregate in the surface during the early stages of use. This is quite normal following trafficking and use, and provides the slip resistance element to the following system. Type 8 resin flooring systems are very hard wearing and durable, with an anticipated life of 10-12 years when cleaned and maintained in accordance with the manufacturers recommendations. These systems are designed for their functionality and performance in specific environments such as food production where hygiene and slip resistance are the key factors. These types of floors are not designed for their aesthetic properties and are not considered to be a decorative flooring system

I need a new floor for a workshop which is subject to spills of oil. It will also have to resist mechanical impact and abrasion from pallet trucks.

For this we would recommend a 5mm epoxy resin screed. It will have a sealed surface so will not absorb spills, but is also textured so that it has good slip resistance.

I'd like a floor finish in a shopping centre toilet.

Our normal recommendation is a quartz epoxy resin screed, which is anti-slip in wet conditions, impervious to spills and hard-wearing, but also has a decorative finish. If speed of installation is of the essence, an MMA system should be considered instead

We need a hard-wearing floor for a meat processing area. It's wet all the time and is steam-cleaned daily.

A 9mm thick polyurethane screed. These are extremely hard-wearing and textured for good wet slip resistance and will withstand regular steam cleaning

I need a floor for a freezer but it can't be taken out of service during installation.

For this we would recommend a textured quartz MMA system. This can be applied down to minus 30°C and can be accelerated so the floor can be back in service within 3 hours.

Hygienic and antistatic floor for an operating theatre.

A self-smoothing antistatic epoxy. The dense smooth surface is impervious to spills and easy to clean

We have a suspended walkway which needs to be coated.

Two coats of a high-build flexible polyurethane coating with a sand blind on the first coat to give an anti-slip finish. This will accommodate any movement which occurs on suspended structural elements

Light-reflective floor for an aircraft maintenance hangar.

A high-build epoxy coating which has been specifically formulated for resistance to Skydrol (aviation hydraulic fluid). The best colour for light reflectance would be a light grey.

Decorative hard-wearing floor for an office atrium.

An epoxy resin terrazzo gives a good combination of pleasing appearance and hard wear. An MMA flake system should also be considered if the downtime is limited.

Is it possible to achieve FM2 with an epoxy self-leveller?

Epoxy self-levellers are typically 2-5mm thick but will still follow the contours of the slab. They will only achieve FM2 if the slab is laid to FM2.

When would grinding preparation be recommended?

To smooth the background surface for application of resin coatings; to clean soft composition background surfaces; to remove adhesive and levelling compounds (not exceeding 1mm in thickness); for removal of surface contaminants i.e. oil, grease and/or to key existing resin surfaces and screeds.

What advice is available for commissioning resin floors with under floor heating?

Before any floor finish is installed, the screed must be dry to below 75% RH, and the underfloor heating commissioned according to the manufacturer's guidelines.

The requirement of BS EN 1264-4, clause 4.4, is that cementitious screeds must wait until at least 21 days after being laid before heat can be applied; anhydrite screeds must wait 7 days before heating may commence; BS 8204:2003 concurs with this. For all screed materials, the specification of the manufacturer shall be followed.

For water based floor heating an initial heating up commences at a flow temperature between 20oC and 25oC which shall be maintained for at least 3 days after which the water temperature shall be raised to the maximum design temperature for a further 4 days, and tests documented. For Electric Cable heating systems a floor screed thermostat is required and set initially at 18 - 20°C, after which the temperature should be raised as described above or at 5°C intervals until the design condition is achieved.

The commissioning process is held at operating temperature until the relative humidity in the screed is 75% or less. Allow to cool for 48 hours before applying the floor finish.

