

FIRST CHOICE IN FLOWING SCREED



The surface of a Gyvlon screed must be prepared to receive subsequent floor finishes to minimise the risk of failure and ensure that a trouble free installation results for the duration of the service life of the floor. The following guide lines have been drawn up to take the floor layer through the relevant stages of preparation to minimise the risk of failure of the finished floor covering in later life.

1. Removal of Surface Laitance

Occasionally it will be necessary to sand the surface of a Gyvlon screed to remove surface laitance, however when subsequent floor finishes are to be fixed to the screed the laitance must be removed prior to application of an approved primer/sealer. In ideal conditions sanding should be possible 1-3 weeks after laying but this can be greatly influenced by conditions within the building envelope with damp or humid environments likely to extend this considerably.

It is advantageous to remove the laitance at early ages whilst it remains weak and friable however if left in place a small delay to drying times may result and effective removal may be more difficult to accomplish.

Sanding of the surface is generally carried out using an industrial orbital sander fitted with a carborundum disk (typically 60's grit) and suitable dust extraction. Due to the fine nature of the laitance it may be necessary to use several grades of carborundum to avoid clogging of the finer disks. Strongly adhered laitance may require the use of an abrasive copper disk followed by the use of a finer carborundum disk to produce the desired surface.

2. Determination of Residual Moisture Content

Prior to sealing/priming and the application of subsequent floor finishes the residual moisture content of a Gyvlon screed should be checked by the floor finishes contractor. This can be accomplished by one of the following approved methods.

- **Hair Hygrometer:** This is the British Standard test method for determining the suitability of a base to receive resilient floor coverings. The test is non destructive and when adhering to the test method defined in BS8203 provides reliable results for calcium sulphate based screeds for a Relative Humidity of 75%.

- **Carbide Bomb:** A destructive test method in which a small sample of screed is removed and placed in a test vessel in the presence of a chemical reagent. This method gives a direct reading of the moisture content within the sample of screed tested.
- **Oven Drying:** A sample/core of screed is taken from the floor weighed and dried in an oven at 40°C for - days. This method again gives a direct measurement of the moisture content within the screed.

In all instances when applying resilient floor coverings the maximum permissible moisture content for impermeable finishes such as vinyl and tiles should be 0.5%, which when using the hair hygrometer test method equates to a reading of 75% RH, and 1.0% for permeable coverings such as carpet.

Note: Electronic meters are not suitable for accurate determination of the moisture content of calcium sulphate based screeds however can be used as a guide to determine the wettest areas of the screed. Once identified it is recommended that the hair hygrometer should be placed in these locations.

3. Repairs to Surface Damage Making Good

The surface of a Gyvlon screed may become damaged as a result of general site traffic or may, although unlikely require making up to the correct datum. In both cases remedial action will be required to make up the screed depth produce a surface that is suitable to receive resilient floor coverings.

SURFACE DAMAGE:

- Clean back to sound material removing any dust and other contamination.
- Prime the area with the approved primer in accordance with the manufacturers recommendations.
- Apply the recommended levelling material in accordance with manufacturer's instructions.
- Allow to cure and sand the surface of the screed as previously described.

Preparation of Gyvlon Screed to Accept Floor Finishes

Applicator Data Sheet

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MAKING GOOD LEVELS:

- Lightly sand the surface of the screed.
- Remove dust and other contaminants.
- Prime the area with the approved primer in accordance with the manufacturers recommendations.

Apply the appropriate levelling compound relative to application thickness in accordance with the manufacturer's recommendations.

Note: When applying levelling compound to a Gyvlon screed it is important that the residual moisture content has been determined and that the relative humidity should be less than 75% as determined by the hair hygrometer test method. Failure to adhere to this stage of the process is likely to result in failure of the bond between the primer and or the floor covering and the screed.

Whenever cement based leveller or moisture sensitive coating is to be applied to a Gyvlon screed the screed should be dry and primed with a penetrative epoxy, polyurethane or acrylic polymer primer as recommended by the manufacturer of the levelling compound.

Failure to follow the installation guide lines and good site practise during the early life of the screed may also result in defects in the screed generally in the form of cracks. Cracks if present will require different treatment, in accordance with the methods given below, dependant on severity.

CRACKS:

The following procedures must only be followed subsequent to drying of the screed. Cracks up to 0.5mm may close during this time and autogeneous healing of the screed will occur.

SMALL CRACKS:

- Rake out loose material from the edges of the crack, vacuum removing any dirt or dust that has been walked into the crack.
- Mix up an appropriate water based polymer with water diluted in a ratio of 1:5.
- Add the diluted polymer to gypsum finishing plaster to produce a fluid pourable consistency
- Pour mixture into the cracks and work in using a trowel.
- Allow to stand and fill up as necessary, where required fill with material of a stiffer consistency.
- Scrape off level with the surface of the screed.

- Sand over the whole area as described earlier.

LARGE CRACKS:

- Open the top of the crack chasing out a minimum of 5mm x 5mm using a disc cutter.
- Rake out any loose material and vacuum to remove any dirt or dust that has been walked into the crack.
- Fill the crack with a low viscosity epoxy resin topping up as necessary. For larger cracks the epoxy can be bulked out with a fine, dry silica sand.
- Sand the whole area as described earlier.

EXCESSIVE LAITANCE:

- Sand the whole area of screed and vacuum to remove all traces of contamination, dust and friable laitance.

Note: When excessive bleed occurs as a result of high fluidity or ingress of water prior to the screed setting an excess of fines will form at the screed surface. This must be removed prior and may require the use of additional heavy duty sanding to produce a surface suitable to receive floor finishes

- Ensure the screed is dry, < 75%RH.
- Ensure the surface remains free from contamination and apply a suitable penetrating primer in accordance with manufacturer's recommendations.

Note: Where underfloor heating is present commissioning in accordance with the manufacturer's recommendations must be undertaken prior to application of the primer. Due to increased porosity heavily sanded areas will benefit from the use of a water based epoxy.

- Make good surface levels using a suitable smoothing compound in accordance with manufacturers recommendations.

4. Priming

In common with all types of screed a suitable surface sealer/primer must be applied, in accordance with the manufacturer's recommendations, to the surface of a Gyvlon screed prior to adhering the final floor finish.

Note: When applying cement-based products such as levelling compounds or adhesives, the screed must be dry and should be primed with the appropriate primer as recommended by the manufacturer of the cement based product.

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