



Gypsum & Anhydrite Based Screeds

These types of screeds are becoming more and more popular on major construction projects as they are perceived to be quick drying and can be installed up to 10 times faster than conventional sand/cement screeds. They have three main problems as far as installing vinyl floorcoverings are concerned: moisture content, surface finish and chemical compatibility.

MOISTURE CONTENT

Because Gypsum and Anhydrite screeds are stronger than sand/cement screeds they are generally installed thinner (35-40mm as opposed to 70-75mm). They actually dry at about the same rate as sand/cement (1mm per day in ideal conditions) but of course the reduced thickness means that total drying time is considerably reduced. In normal site conditions, which are usually less than ideal! This translates into a probable drying period of 2-3 months.

It is important to note that unlike sand/cement, these screeds dry from the bottom upwards (crystallisation rather than evaporation). This means that Hygrometer tests carried out in accordance with BS8203 will give no indication of the drying cycle. A Hygrometer will tell you when the required 75%RH has been achieved but it may well have been reading 95% the day before.

The little used carbide bomb test may be more accurate (0.5% is roughly equivalent to 75%RH) but some tests have shown it to be unreliable. Protimeter, have developed a special instrument called the AlphaMeter which they claim will accurately monitor the drying cycle of Anhydrite screeds.

Generally the suppliers of these screeds do not recommend the use of a surface DPM where there is a risk of retained moisture leading to degradation of the screed. Guidance from the relevant manufacturer must be obtained regarding testing and treatment.

SURFACE FINISH

These screeds are commonly applied by pump which leaves a laitance on the surface. After 2 or 3 days this has to be sanded off. The timing and quality of the sanding is critical, too soon and the top surface will be soft and sticky causing clogging and a poor finish, too late and it becomes hard to achieve a smooth finish and large amounts of dust are created. A recommended primer must be used before installing any floorcovering.

CHEMICAL COMPATIBILITY

This type of screed contains calcium sulphate which, if it comes into contact with the cement material present in smoothing compounds and water (from adhesives) will cause a chemical reaction and a subsequent failure of the smoothing compound bond. Calcium sulphate may also reduce the effectiveness of flooring adhesives. It is therefore essential that a suitable primer is applied before any smoothing compound or adhesive is applied. It will be apparent from the above that the Flooring Contractor would be well advised to ensure that he identifies the screed type and treats it accordingly taking advice from the manufacturers if necessary.

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