

SCREED DEPTH



This month the Screed Scientist discusses minimum screed thickness on traditional, fast-drying and anhydrite screed considering different applications.

One of the keys to laying a perfect floor is to install a good-quality screed, which must be solid, level, flat, and thick enough to bring the sub-floor to the pre-established height. Whilst standard screeds are typically laid at a minimum thickness of 75mm, a number of polymer modified screeds have been developed to deliver high performance at reduced depths.

Polymer modified formulations incorporate special additives that control the curing and drying process along with screed performance in service, which translates into lower moisture content. As a result, screeders are able to deliver thinner yet sound, durable, completely dry sub-floors within tight time frames.

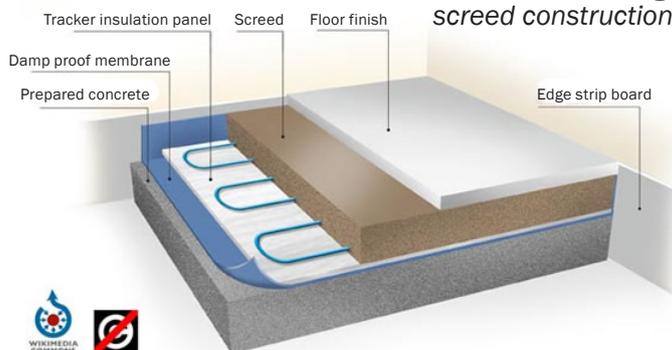
TRADITIONAL SCREEDS

Traditional sand-cement screeds are mixed in a 1:3, 1:4, or 1:5 ratio and installed semi dry, in situ, at a minimum thickness of 75mm for commercial floors. Since traditional screeds do not contain additives, they take approximately 110 days to dry thoroughly (one day per mm up to 40mm and two days per mm over 40mm). Besides levelling sub-floors and bringing them to the desired height, traditional floor screed formulations can be used to enhance the energy efficiency of underfloor heating systems. In underfloor heating, standard sand-cement screeds should be laid at a minimum thickness of 30mm over the heating elements. Traditional screeds are suitable for a wide variety of applications, ranging from residential to commercial projects.

FAST-DRYING SCREEDS

Fast-drying floor screed formulations contain special additives and admixtures enable accelerated drying and hardening. Laid at a minimum depth of 15mm to 65 mm, depending on the application, these screeds allow light foot traffic to commence as early as 12 hours from the installation. Additionally, a 60mm layer of fast-drying screed can have a drying time

Underfloor heating screed construction



of just 3 days, in ideal ambient conditions, facilitating early installation of decorative treatments. Fast-drying screeds are also characterised by a low shrinkage rate and stable performance in underfloor heating. To deliver a durable, efficient construction a minimum screed thickness of 25mm is required over the heating elements in underfloor heating applications.

ANHYDRITE SCREEDS

Anhydrite screeds have a liquid consistency. Hence, they are easier to install in large areas and can be applied at reduced thicknesses. Anhydrite formulations also have a low shrinkage rate, which makes them suitable for use in conjunction with underfloor heating systems. Made from calcium sulphate, sand, and water,

these screeds are incompatible with cementitious adhesives and should not be used in areas subject to dampness. According to experts, the minimum application thickness for anhydrite screeds is between 25mm and 45mm, with 25mm above heating elements.

Correctly specifying the type and thickness of the floor screed during the earliest phase of the architectural design process is critical for project success. As each floor and flooring finish is different, we recommend that you consult a professional screeding company for your specific screed depth requirements.

For additional information about screeds and recommended thicknesses, visit the Screed Scientist **website** or call our experts on 0845 500 4055.

A Quick Guide to Minimum Screed Thicknesses**

	Traditional	Fast Dry/Modified Screeds	Anhydrite
Bonded	20 mm	15 mm	25 mm
Unbonded	50 mm	40 mm	30 mm
Floating	65 mm residential 75 mm commercial	65 mm	35 mm
Underfloor heating	65 mm residential 75 mm commercial	60 mm	45 mm
Depth over pipes	30 mm	25 mm	25 mm

** Please note, this is a general guide only and you should seek professional advice. There are many proprietary products on the market that can have higher or lower thickness requirements depending on the application. For example screeds that will take heavy traffic generally require more in thickness. Please consult the relevant product data sheets.