

Construction



## **Sika® SureFlow Anhydrite Screed** A Premixed Quality Controlled Flowing Floor Screed



# Sika® SureFlow



## Introduction

**Sika® SureFlow** is a flowing pumpable self-levelling floor screed based on synthetic anhydrite. It is ready to use and provides advantages over traditional commercial screeds. **Sika® SureFlow** is composed of selected aggregate and specially developed calcium sulphate binder. It is a complete all in quality-controlled material requiring only the addition of water.

**Sika® SureFlow** provides an easy alternative to traditional sand/cement screeds. The ability to improve the speed and quality of screeding provides for a cost effective alternative, which can be laid thinner than conventional screeds and provide a self-placing smooth finish.

**Sika® SureFlow** is manufactured under effective quality control systems and has the benefit of using only dry materials ensuring a reliable consistent finished product. It is available in 20kg bags or via volumetric trucks in bulk. Specialist flooring contractors are recommended to ensure a high quality of finished floor. **Sika Limited** can supply a list of specialist contractors who have completed our internal training and are experienced in the laying of **Sika® SureFlow** local for your project.

**Sika® SureFlow** can be installed either as a fully bonded or as a non bonded screed, or as a 'floating' system in both new and refurbishment contracts. It is also ideal for use in conjunction with proprietary under-floor heating and cavity floor systems.

## Uses

**Sika® SureFlow** is used for levelling and provides a smooth flat surface ideal for the application of thin floor coverings and other floor toppings. **Sika® SureFlow** is far less labour intensive and up to ten times the area may be laid with one labour team as compared with alternative semi-dry screeds. In contrast to many traditional screeds, shrinkage and curling is most unlikely to occur, any that does will be minimal. It may be laid at a lesser thickness than conventional semi-dry screeds, thus saving labour, cost and overall space. It can be used in all dry locations and applications where traditional screeds are laid and it provides an excellent surface finish. It must be used internally only and is not suitable for external areas or, as with all hydrate screeds, areas that come into constant or frequent contact with water.



Prepared area with dpm and compression strip around the perimeter



**Sika® SureFlow** being supplied using volumetric truck discharging into pump. minimal waste, optimised delivery quantities



**Sika® SureFlow** being placed by pump to the required location

## The advantages of using Sika® SureFlow

### For the Client and Designer

- ▲ Total Quality Control
- ▲ Competitive Cost
- ▲ Less Risk
- ▲ Time Saving
- ▲ Ideal for Under-floor Heating
- ▲ Superior Sound and Thermal Insulation

### For the Specialist Contractor

- ▲ Effective Use of Resources
- ▲ Early Access/ Fast Track Construction
- ▲ No Reinforcement
- ▲ Ease of Placing
- ▲ Minimum Number of Joints
- ▲ No Mechanical Compaction
- ▲ Continuity of Supply
- ▲ No Partloads

## The Advantages when compared to sand/cement

	SureFlow	Sand/Cement
Rates	2000 m <sup>2</sup> /Day	150 m <sup>2</sup> /Day
Application drying time	40 days	75 days
Quality/Mixing	Excellent	Poor (workmanship)
Joints	40m +	6m
Floating Screed	No mesh (min 40mm)	D49 Mesh (min 65mm)
Speed	Fast	Slow
	Competitive due to labour saving	
Material cost	High	Lower
Labour cost	Low	High
Overall cost	Lower	Higher



The specialist contractor 'dappling' the floor to its final finish

## Base Preparation

Where applicable, the structure must include a dpm against rising moisture, which could be above or below the base slab. Note that damp concrete bases (e.g. with residual construction moisture) can result in considerably longer drying times for a screed laid over that base. Consideration should therefore be given to the need for an additional dpm over the base concrete. The Designer and Main Contractor must be responsible for determining the need for dpm.

## Perimeter Expansion Strips

All **Sika® SureFlow** screeds require a perimeter expansion strip of compressible material such as polyethylene to be fixed to walls and columns to allow for any small movement as the screed dries and hardens and for small thermal movements. Allow an expansion Strip thickness of 4mm per 10m length of screed, (and a minimum 8mm thickness), at both sides/ends of the screed. The expansion strip can be provided by turning up the insulation (if of suitable type) or by the use of a purpose designed strip of compressible material which may include a "skirt" which, when connected to the membrane, will provide continuity.

## Joints

Very large pours of un-bonded or floating construction, with a dimension exceeding 40m without a break (such as dividing walls), should have a monument/construction joint of suitable material (such as **Sikaflex®** sealant). Alternatively, a full depth saw cut might be made as soon as the screed has hardened, to form a joint. As with all screed types it is necessary to form joints above the line of structural movement joints, (ie. bring through from the supporting slab).

## Curing/Trafficking

The area to be screeded must be weather-tight (i.e. all roofs, windows and doors must be covered). Draughts and direct sunlight must be avoided during the curing period or surface crazing and cracking may occur. Do not cover the screed, e.g. with polythene, as this is not necessary for curing and will only delay final drying of the screed. Access to the screed should be restricted for at least 24 and preferably 48 hours to prevent mechanical damage to the screed surface. Thereafter light foot traffic should be possible. If there are any areas that require additional preparation to remove the surface laitance layer, this should be carried out as soon as possible, usually after approximately 7-10 days. This will provide a dense surface to receive adhesives as well as speed the drying of the screed. **Sika® SureFlow** does not normally require sanding at 250mm flow. Normal site traffic and erection of non-load bearing partitions off the screed is permitted 7 days after laying of the screed.



Completed floor after placement

## Drying

Screed drying time is 1day/mm up to 40mm thickness in warm and well-ventilated drying conditions. This will increase for screeds thicker than 40mm and in poor drying conditions. In common with other screeds, it is very important that good drying conditions are provided from as soon as the screed is laid. The screed should be protected from very rapid drying or draughts during the first 3 days, but thereafter air humidity should be low (ideally 65% RH or below) so that moisture can be released. Good ventilation or the use of dehumidifiers can assist in reducing the ambient humidity. Forced drying is permitted 7 days after laying of the screed. Under-floor heating should slowly be commissioned in accordance with the instructions of the manufacturer, and may be used to speed dry the screed 7 days after laying of the screed.

## Water Ingress

Avoid water ingress to completed screeds, and arrange to dry out accidental ingress as soon as possible. The screed may suffer a minor loss of strength if it becomes very wet, however, this strength will be regained when it dries out.

### Technical Data-Typical

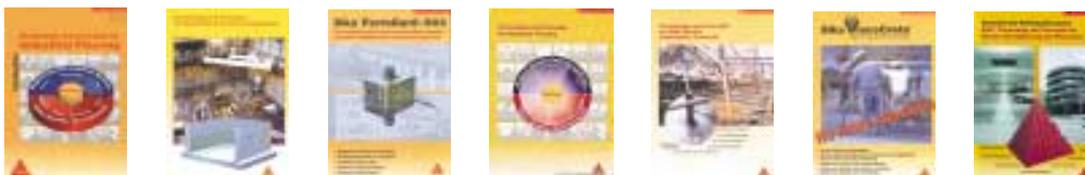
- All the values are approximate.

Flow (DIN 1060 test)	250-300mm
Wet density	2200 kg/m <sup>3</sup>
Dry density	2000 kg/m <sup>3</sup>
BRE impact test	less than 2mm
Flexural strength	3-6N/mm <sup>2</sup>
Drying shrinkage	less than 0.02%
Time to light foot trafficking	Normally 24 hours
Drying time (20C/60%RH)	1 day/mm up to 40mm 2 day/mm over 40mm
Fire Rating BS 476:Part 4	Non combustible
Thermal Conductivity	1.6 W/mK
PH	11-12
Setting Time Mixing	Not less than 3 hours From Mixing

### Thickness

Bonded	25mm
Unbonded over a solid base	30mm
Floating on Insulation	40mm
Cover over heating	25mm
Minimum thickness	25mm
Maximum thickness	75mm

### Also available from Sika®



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