





-  SCREEDS AND SELF-LEVELLING COMPOUNDS
-  MASSETTI E AUTOLIVELLANTI
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-  JASTRYCHY I WYLEWKI SAMOPOZIOMUJĄCE



## SC 1

# Ready-to-use screed for shrinkage-compensated sub-soils CE MARK EN13813 - CT-C35-F7

### Description

SC 1 is a premixed powder that when the exact amounts of water are added, gives rise to a specific mix for fast drying, shrinkage compensated sub-soils, suitable for both ceramic tiling and resin coating. The ideal thickness for SC 1 screeds is 5÷6 cm, but a whole thickness range can be obtained. SC 1 is CE marked according to the European Standard EN13813 and it is classified as CT-C35-F7-A1<sub>fl</sub>

### Where to Use

SC 1 is used to obtain in a short time, when it is required, a subsoil ready to receive the subsequent installation of waterproofing coats like BETONGUAINA, floor resins or any type of tiles. In fact, SC 1 allows the installation of BETONGUAINA, water-based epoxy resins, ceramic and cotto tiles after only 24 hours from casting, while allows the installation of rubber flooring, carpet and wood after only 10 days.

#### Heated floors

SC 1 is the perfect subsoil for any heated floors to be subsequently coated with any kind of finishing coat. SC 1 is not chemically aggressive towards the most common type of pipes (made of polypropylene, etc.) used in the heating system.

In this case, after the screed is laid, it is advisable to start heating slowly and then switch to cooling, before proceeding with the coatings laying.

### Advantages

SC 1 screeds:

- reach a good compression resistance in a relatively short time;
- are ready for use;
- can be applied either in thin layers (up to 2 cm thick) as an adherent screed or as a floating screed in layers up to 3.5 cm thick;
- exhibit a very low shrinkage rate.

### Application

Special attention must be paid during cast preparation both for what concerns handling the product while dry and the mixture; to this end, great care should be taken in following the warnings as well as the instructions given in the sections "How to use", "Warnings" and "Useful tips", in order to achieve the objectives established for the project

#### Installation of a Structural or Floating Screed

First it must be clear whether the to be made screed should adhere to the existing substrate (structural screed) or be separated from it (floating).

#### *Substrate Preparation for Floating Screed*

A waterproof sheet (minimum thickness of 200 micron) shall be applied to the installation area, with overlapped by at least 20 cm.

Position a 4÷5 mm thick foam strip along the perimeter and around pillars (if any).

#### *Preparing the substrate to receive a Structural Screed*

Check the substrate moisture content and, if it exceeds 2.5% (carbide measured), apply one or two layers of NORPHEN SW SOLID to the bottom **until a continuous film has formed**, then broadcast the surface, wet on wet, with a layer of quartz sand, grain size ranging from 0.7 to 1.2 mm.

If the substrate is dry, apply a foamed strip all around the perimeter (as above) and prepare a liquid mortar consisting of 1 part of undiluted GROVE PRIMER and 3 parts of SC 1.

Apply the grout on the installation surface with a scrubber.

Cast the SC 1 screed within a few minutes.





### How to Use

SC1 screed can be installed in different ways depending on the mixture preparation method.

#### In a Drum Concrete Mixer

Normally 8 SC 1 bags at a time can be mixed.



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Pour into the mixer all the water needed by the mixture that **equals to 2.1 ÷ 2.4 litres each 30 kg sack.**

Add 7 bags of product and mix for no longer than 60 ÷ 90 seconds.

Add a bag or part of it and keep mixing for **no more than 2 minutes**, ensuring that a mix with a wet soil consistency is obtained.

In case of formation of round agglomerates, break them into the mixer and mix again before installing the screed

Take the material out of the mixer and proceed with laying, compaction and work with the straight edge. As soon as it begins to harden, smooth the screed with a disc machine, spraying (if needed) a small amount of water on the surface to get a better finish.

#### In a Continuous Mixer

Empty the SC1 bags into the car and start it.

Adjust the water flow until obtaining a wet soil consistency.

Remove any existing residual product used to set up the machine as it might jeopardize the final result.

Proceed with the installation of the screed.

#### With a pressure pump

Adjust the machine so as to achieve optimum mixing and pumping power.

**Pour enough SC 1 for one fill, add water to achieve the right consistency and leave to mix for no longer than 2 minutes.**

Download and proceed with the installation of the screed.

#### **Tools Cleaning**

Clean tools with clean water until the product is fresh, once it has hardened remove it by mechanical means.

#### **Coverage**

To obtain 1 cm thickness of dry product approx. 18 ÷ 20 kg of product each 1 m<sup>2</sup> are required.

#### **Warnings**

- Be sure to store the bags in the shade and away from humidity
- Strictly abide to the exact mixing time and water amounts as instructed in the section "How to use".
- During the hardening phase, do not add any water to regenerate the product if it has started to set.

#### **Useful Tips**

- The introduction, at one third from the bottom, of a reinforcing welded mesh (wire 5 mm, opening 20x20mm) will certainly improve the screed performance and help eliminate any crack due to shrinking.
- In case of a cold shut a piece of welded mesh should be inserted between the cast ends, to avoid any joint formation.
- Over piping or drainage you must reinforce with a hexagonal mesh (minimum screed thickness no less than 2 cm) to avoid crack formation.

#### **Colour**

This product is available only in grey

#### **Specifications**

PRODUCT IDENTITY DATA		
Consistency	---	dust
Colour	---	grey
solid residue	%	100
granulometry, UNI EN 933-1	mm	≤ 2.5
APPLICATION DATA (at +23 ° C and 50% RH)		



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Mix Bulk Density		kg/m <sup>3</sup>	2100 ± 50
mixing water		%	7÷8
pot life		min	90-120
application temperature		°C	from +5 to +35
minimum applicable thickness:	in adhesion to low thickness	mm	20
minimum applicable thickness:	floating	mm	35
curing time for the installation:	ceramic	hours	24
curing time for the installation:	cotto and natural stone	hours	72
curing time for the installation:	wood, vinyl, rubber, carpet	days	10
<b>FINAL PERFORMANCE (in accordance with EN 13813)</b>			
Compressive strength	at 28 days	N/mm <sup>2</sup>	> 35
flexural strength	at 28 days	N/mm <sup>2</sup>	> 7
thermal conductivity, λ (*)		W/(m·K)	1.7±0.2
reaction to fire		class	A1 <sub>fl</sub>

Note: the test method refers to regulations as indicated on the table

(\*): the determination was carried out using a physical model compatible with the one of the reference standard UNI EN 12664:2002.

#### Packaging and storage

Packaging	30 kg bag in 56 bags pallets
Storage	12 months in its original packaging, in a covered and dry place. At temperatures between +5 ° C and +35 ° C. The product is moisture sensitive.

#### Legal Notice

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#### Edition

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