

A 3

Screed concentrate

DESCRIPTION

A 3 is a screed concentrate made up of high quality additives and superior polymer to produce rapid usable screed for receiving floor coverings such as tiles/stones/cementitious self levelling compounds/resin coatings/textile floor coverings/parquet flooring. A 3 modified screed can be installed as bonded or unbonded.

USES

A 3 modified screeds are ideally suited for screeding large floor areas wherein speedy execution of work can enable subsequent activity to be carried out, saving time and money. Some examples of application areas are:

- Airport Terminals
- Public spaces
- Shopping Malls
- Universities
- Suitable as an underlay screed for wet on wet application of tiles & natural stones using S 15 C (cementitious slurry adhesive)

FEATURES

- Early drying compared to traditional cement sand screed
- Reduced drying times: For bonded screed, tiles like ceramic can be laid after 24 hours using proprietary adhesive.
- After 7 days dry, it is ready to receive natural stones, textile floor coverings, parquet flooring and resin coatings.
- Walkable after 8 hours
- Easier spreading and working of the screed
- Longer smoothing and floating time
- No water curing is required but protection with PE-foil sheet recommended
- It is suitable as binder for screeds according to DIN 18560 and EN 13813

PHYSICAL PROPERTIES

A 3 @ 27±1°C

Installation temperature > 10°C

Humidity < 70%

BRE Screed Test Category A
BS 8204-1:2003

A 3 modified screed	1:5	1:6	1:8
Fresh Mortar	2.275 kg/l	2.317 kg/l	2.290 kg/l
Working Time	50 min	50 min	60 min

Screed - compression testing			
1 day	> 10 N/mm ²	> 10 N/mm ²	> 8 N/mm ²
7 days	> 30 N/mm ²	> 25 N/mm ²	> 20 N/mm ²
28 days	> 35 N/mm ²	> 30 N/mm ²	> 25 N/mm ²

Screed - flexural testing			
28 days	> 3.0 N/mm ²	> 2.5 N/mm ²	> 2.0 N/mm ²

Pull-of adhesion testing			
14 days	2.02 MPa	1.77 MPa	1.42 MPa

NOTE: For alternative sand: cement mix ratio, please contact ARDEX ENDURA - Central Technical Services Department. Test has shown that sand complying with the following grading table provides a workable screeding mortar with good compatibility.

Also, if natural sand is not available, crush sand recommended by ARDEX ENDURA can be used.

Sieve size (BS 410)	Proportion by dry mass passing nominal mesh size.
10.00 mm	100%
5.00 mm	90% - 100%
2.36 mm	65% - 97%
1.18 mm	40% - 90%
600 µm	24% - 75%
300 µm	8% - 40%
150 µm	0% - 10%
75 µm	0% - 3%

THICKNESS

A 3 should be applied to the following thicknesses as recommended by BS 8204: Part 1 or BS 5385: Part 3

Bonded screeds: 15mm - 50mm

Unbonded screeds: 50mm+

Floating screeds: 75mm+ or 65mm+ in lightly loaded/domestic locations

When used for screed repair, A 3 can be applied to the full thickness of the existing cement/sand screed.

APPLICATION INSTRUCTIONS

Surface Preparation

The concrete surface must be dry, hard, sound, free of dust and the barrier materials such as paint, lime coatings, plaster, curing agents, wax, polish, laitance, etc., that will inhibit adhesion to the substrate. The substrate strength must be sufficient to support the screed.

Concrete surface must be mechanically prepared, either by scabbling, grinding, contained shot blasting equipment or similar, and be vacuumed clean prior to application of slurry coat.

Primer for Bonded Screeds

The cement levelling screed shall be bonded to the sub base by P51 (acrylic based bonding agent)

For bonded screeds slurry bond coat should be prepared as stated below

P 51 : Water : Grey OPC Cement : 0 - 4mm Sand
1 : 2 : 2 : 2

1.2 kg of slurry has to be applied to the substrate @ 1 sqm/coat.

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Prepare the screed as per the table below.

A 3 mixing ratio	1:5	1:6	1:8
A 3	500 g	500 g	500 g
OPC 53 G cement	50 kg	50 kg	50 kg
Sand (0 - 8 mm)	250 kg	300 kg	400 kg
Water	22.50 kg	26.60 kg	36.60 kg

Coverage			
@ 20 mm thickness	6.90 m ²	7.70 m ²	9.60 m ²

Pour the mixed screed mortar onto the prepared wet slurry primed substrate; spread the screed mortar using a steel flat trowel.

The working time of the screed is approx 1 hour. Mixing, application, levelling and smoothing must succeed each other at a brisk pace. The screed installation should only be of such a size that they can be completed within this working time. Higher temperature shorten, lower ones lengthen working and hardening time. All day end joints and joints due to delay, shall be continued by applying slurry coat.

Pay attention to the following:

- For unbonded screeds, minimum thickness should be 55 mm and for bonded screeds it should be 15 mm. Maximum thickness for both unbonded & bonded screeds is 75 mm.
- Panel size for unbonded screed should not be more than 60 sqm.
- Carry out moisture test prior to installing with any floor coverings like vinyl, parquet.
- Movement and expansion joints should be provided as in conventional screeds.
- For installation of floor coverings such as Cementitious & Resin coatings, consultation with the ARDEX ENDURA - Central Technical Services Department is necessary.

PACK SIZE

500 gms

STORAGE AND SHELF LIFE

A 3 has a shelf life of 12 months if kept in a dry, clean store between 5°C and 30°C in the original unopened packing. The product should be protected from frost, away from direct sunlight and sources of heat.

PRECAUTIONS

During mixing and application the following precautions should be observed: ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water. Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to cement-based materials. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL

Disposal of empty packaging should be in accordance with local waste disposal authority regulations.

For further information please refer to the Material Safety Data Sheet.

CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products. However, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.



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