

## LEVEL FINO

### Self-leveling cement for substrate smoothing or coloured finishing NEUTRAL OR COLOURED

#### Description

LEVEL FINO (NEUTRAL or COLOURED) is a premixed powder providing a very fluid cement mix to apply in self-leveling and highly resistant smoothing layers, setting fast on new or old substrates.

The product offers a remarkable capacity for adhesion to any kind of substrate normally used in the building industry; we recommend, however, preparing the base with specific primers, as indicated below, before laying LEVEL FINO.

Thanks to its special formulation, the product is suitable to be used both indoors and outdoors, with just a few limitations due to substrate conditions.

#### Range of use

LEVEL FINO NEUTRAL is used as a self-leveling, fast setting smoothing coat prior to further treatments and/or coverings; a thickness of no less than 3 mm is required if high tensile strength materials (parquet, thick resins, etc.) are going to be laid down.

LEVEL FINO COLOURED is used, in layers up to 10 mm thick at a time, as a finishing treatment for:

- Sand and cement screeds, SC 1, SC 1-R or SC 1-BASE and sand screeds, on evenly absorbing surfaces: if necessary, prime with NORPHEN SW SOLID (see below);
- Natural calcium sulphate or synthetic anhydrite screeds, following NORPHEN SW SOLID treatment (see below);
- Existent ceramic, marble, natural stone, wood, clinker, stoneware floors (see below on how to prepare the underlying surface).

#### Advantages

LEVEL FINO:

- Can also be used outdoors thanks to its capacity to withstand a high number of frost-defrost cycles;
- Is fast setting;
- Its special formulation eliminates any shrink tension after application.

#### Application

Preparing the underlying surface:

- The substrate must be carefully checked to make sure it is suitable for LEVEL FINO application: in particular, compression resistance must be no lower than 20 MPa and adhesion (direct traction) no lower than 1.5 MPa;
- The surface to be treated should be stable, perfectly coherent, devoid of anything that might prevent LEVEL FINO adhesion, and evenly absorbing;
- Old tiling or natural stone surfaces must be washed with NORDECAL FORTE and rinsed, or alternatively sanded with a diamond wheel;
- Calcium sulphate and synthetic anhydrite screeds are prepared as follows:
- Sand down and vacuum the dust;
- prepare NORPHEN SW SOLID (yield: 50 g/m<sup>2</sup> approx.) and dilute with 4 parts water;
- pour a generous amount of product over the surface, let it go through, then remove any excess with a rubber spatula;
- for wooden surfaces proceed as follows:
- eliminate any trace of old paint by sanding;
- secure any loose strip by nailing it;
- fit to the substrate a 160 g/m<sup>2</sup> (or better, 370 g/m<sup>2</sup>) glass mesh with:
  - a) one layer of NORPHEN RICRETE, wet on wet, sprinkling over generously (but not in excess) with quartz sand, 0.7÷1.2 mm particle size. You will be able to pour LEVEL FINO onto the prepared surface after 5÷6 hours;

*alternatively*

- b) by stapling, in which case you can pour a layer of LEVEL FINO immediately after.

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Moreover:

- to improve compression resistance and adhesion (traction test) on sand and concrete screeds, apply one layer of NORPHEN SW SOLID diluted with 6÷8 parts water the day before laying;
- to seal cracks or even out small holes use NORPHEN FONDO SL INVERNALE (Winter) thickened with c.3% SILICA, about one hour before laying (at 20°C);
- on concrete presenting cracks that should not be transferred to the product, widen the cracks and fill them with two or three abundant layers of NORPHEN FONDO SL INVERNALE at 2÷3 hour interval, taking care each time to eliminate any excess product with a triangular spatula;

Applying the primer (NORPHEN SW SOLID):

1. pour NORPHEN SW SOLID diluted with 4 parts water onto the surface, let it soak through and remove any excess product; pour LEVEL FINO immediately after or in any case within 4÷5 hours (at 20°C). Any later, and you must apply the primer again. Yield: 60 g/m<sup>2</sup> approx. (A+B).

Alternatively, if you prefer to prime the day before to take advantage of the full working day, proceed as follows:

2. apply with the roller one layer of plain NORPHEN SW SOLID and, wet on wet, sprinkle heavily (but not in excess) with 0.7÷1.2 mm particle size quartz sand; wait until the following day and proceed to pour LEVEL FINO. Yield:

- NORPHEN SW SOLID (A+B): 75 g/m<sup>2</sup> approx.;
- Quartz sand (0.7÷1.2 mm, 250 g/m<sup>2</sup>).

Preparing the overlying surface:

- Take special care when dealing with sand and concrete substrates: screeds must be highly resistant and coherent (it's always best to apply one layer of NORPHEN SW SOLID to consolidate);
- Smooth over any existing tiling and apply a layer of NORPHEN SW SOLID;
- Block any drain before going on;
- Do not use the product on more than 0.5÷0.7% steep slopes, as it would slide off into drains.

More tips on product application

**Separation or expansion joints:**

- Always prevent LEVEL FINO from adhering to the walls;
- the only allowed joint-free geometrical shapes on the laying substrate are square and rectangle; "L" shapes must be cut through by a joint and turned into rectangular or square ones (the rule always applies, even with anhydrite or natural calcium sulphate screeds presenting no crack on critical spots);
- with rooms separated by a door, lay down a spacer on the threshold before starting to work;
- with very long corridors, position a few profiles on the floor to break the corridor into 6÷8 m long sections;
- no particular precautions are required for pillars to be embedded in the cast;
- in the case, however, of columns or half columns placed against perimetral walls, use a 5 mm thick ribbon made of expanded material to insulate them from the product before you cast it.

Preparing the product

There are different preparation ways, depending on the surface area to be covered and the product colour.

**Product preparation according to surface area**

- For small surface areas (up to 100 m<sup>2</sup> approx)

The container used to prepare the product must be clean and sized to have its internal diameter only a little larger than the (low speed) mixer blade.

Pour 5.0÷5.25 litres water in, and add one 25kg bag of LEVEL FINO, with mixer running; carry on mixing for 2 minutes to obtain a lump free, perfectly homogeneous mixture.

Transfer to another container and strain the mixture using a steel mesh (opening size approx. 2x2 mm) to eliminate any dirt (bag fragments, lumps, etc.).

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- **For medium to large surface areas:**

Mix LEVEL FINO with a double mixer machine (*DUO MIX M-TEC* or similar), complete with accessories, and set it up as instructed by NORD RESINE technical department.

#### Preparing the product according to colour

LEVEL FINO COLOURED comes in two different packs, depending on the colour:

1. a 25kg bag of COLOURED LEVEL FINO (monocomponent); or
2. a 25kg bag of LEVEL FINO NEUTRAL + 1.5 kg PREMIX LEVEL FINO colour when the ordered colour or quantity requires two separate components. The 25kg bag in this case contains plain, non coloured product (in the white or grey NEUTRAL version), the 1.5kg PREMIX LEVEL FINO *colour* pack provides the necessary pigments to colour 50 kg plain product.

#### Operating instructions:

The container used to prepare the product must be clean, big enough to take at least 30 litres of mixed product and sized to have its internal diameter only a little larger than the (low speed) mixer blade.

- Pour in 10.0÷10.5 litres water and add two bags of LEVEL FINO (50 kg in total), mixing with a professional mixer; continue mixing for 2 minutes to obtain a perfectly homogeneous mixture.
- As soon as the mix is ready, add the PREMIX LEVEL FINO-*colour* pack contents, rinse inside the pack with 1 litre water and add the rinsing water to the mix.
- Lastly, mix again to dissolve the colour.

#### Organizing the laying team

Special care must go into organizing a laying team, to be set up as follows:

##### A) Manual laying:

- 1 person to pour the product;
- 1 person assigned to spatula work (wearing clouted shoes);
- 1 person at the bubble bursting roller (wearing clouted shoes);
- 1 person to attend to the mix;
- 2 persons to prepare the product;
- 1 person to handle the mix when it's ready;
- 1 handy man.

##### B) Machine laying:

- 1 person to lay the product;
- 1 person to displace any tubing;
- 1 person assigned to spatula work (wearing clouted shoes);
- 1 person at the bubble bursting roller (wearing clouted shoes);
- 1 person to prepare the product;
- 1 handyman.

#### Pouring the mix – recommended quantities

Pour the product onto the surface and spread it immediately with a toothed or height adjustable spatula, complete with extension: the teeth or height must be calibrated so as to leave on the surface at least 8 kg/m<sup>2</sup> (but best results in terms of levelled surface are obtained with 10 kg/m<sup>2</sup>).

To help spread the product after laying, pass over repeatedly with a 50 cm bubble bursting roller.

#### Use and laying information

The product is treadable after about 12 hours at 20°C.

To know the drying time (i.e. decrease in water content) according to layer thickness and setting conditions, please refer to the relevant graphs in the "Technical features" paragraph.

#### **Second LEVEL FINO layer**

In case of very irregular surfaces, for better results you may have to resort to two successive layers: in this case the second layer must be applied **as soon as the first has hardened enough** to work on.

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For an even surface absorption and good adhesion, apply in any case one layer of NORPHEN SW SOLID diluted with 4 parts water as indicated before.

#### LEVEL FINO COLOURED finish

Colour shading or patchy areas in the final product are to be considered perfectly normal. For a more uniform surface, however, spray NORPHEN SW SMALTO to obtain a semi gloss finish, or NORDPUR SW OPACO for a matt finish, in the same colour as LEVEL FINO (follow the instructions on the relevant technical cards).

After laying the coloured product in what is meant to be the final finishing layer, you will need a stain resistant, waterproof protection treatment.

For a semi gloss look, apply with roller, sprayer or wax applicator two layers of NORPHEN SW SOLID diluted 3 times in water, at one day interval; for a matt look, apply one layer of NORDPUR SW TRASPARENTE OPACO using a roller or (better) a sprayer.

End off the finishing treatment with a thin layer of NORDPOWDER CERA for easier cleaning.

#### **Yield**

In order to obtain a 1 mm thick layer you need about 2.0 kg/m<sup>2</sup> product powder.

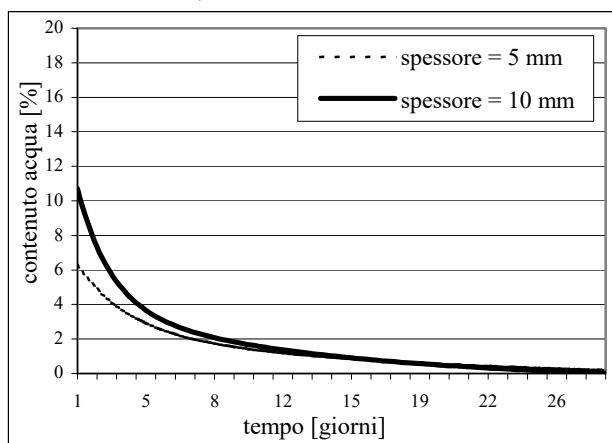
#### **Warnings**

- Always wet the laying surface before product application in the hot season or in outdoor environments, and in any case during the 24 hours following application;
- Do not apply to surfaces that are expected to freeze in the next 24 hours;
- Do not apply in layers thinner than 3÷4 mm on substrates destined to receive parquet floors.

#### **Technical features**

- *Water content*

**(setting at +23 ± 2°C, RH % = 50 ± 10)**



water content  
time (days)  
thickness  
*Water content*

**(setting at +5 ± 2°C, RH % = 70 ± 10)**

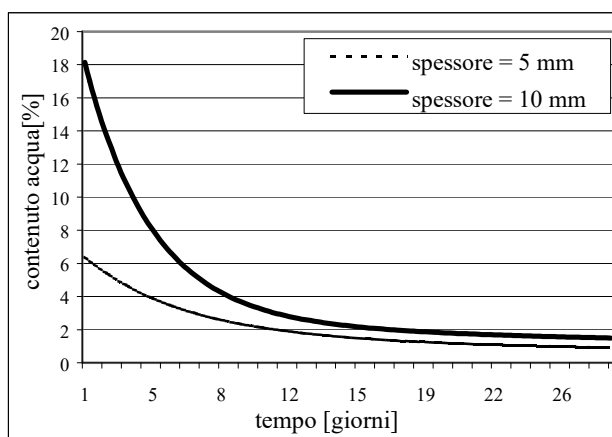


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• *Technical information:*

Mix mass per volume, UNI 8995	g/cm <sup>3</sup>	1.99±0.05
Particle size	Mm	< 0.4
Maximum layer thickness	Mm	≤ 10
Mix water content NEUTRAL (with no pigments) COLOURED	%	20 ± 21 22 ± 23
Setting: start	Min	65
Mix life	Min	20 ÷ 25
Consistency, UNI 8997	---	Superfluid
Abrasion resistance, UNI 8298-9	Mg	650 ± 20
Permeability to water vapour, DIN 52615	μ	80 ± 20
Flexural resistance at 28 days, UNI 196	MPa	11
Compression resistance at 28 days, UNI 196	MPa	39
Adhesion to concrete (at 28 days), UNI EN 1542 Application and setting at +23°C Application and setting at +5°C	MPa	2.1 ± 0.1 0.5 ± 0.1
Application temperature	°C	+5 to +30

Note: test methods refer to the regulations quoted next to them.

### Packaging and storage

Packs	25 kg bags on 56 bag pallets or a) 25 kg bags (neutral: white or grey) b) 1.5 kg PREMIX LEVEL FINO-colour
Storage	Stored in a dry place, the product will keep for at least: ▪ 9 months in the NEUTRAL version; ▪ 6 months in the monocomponent COLOURED version (approx).



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### Edition

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