

Technical Information Sheet

Relö® Levelling Layer

Art.No. 2825

Floor levelling compound.

Hydraulic, fast setting and crack-free hardening. Easy to work, self-levelling, can be pumped.

Property profile:

Relö Levelling Layer is ready-to-use after mixing with water and sets very quickly hydraulically. This levelling layer can be worked by hand as well as with the usual pump machines that use a positive mixer. After mixing, the levelling mortar is highly flowing capable and levels itself to a seamless and smooth surface.

Special characteristics of the product:

- Easy to mix and distribute (pumping capable)
- Fast working because of its high flowing capacity
- The surface levels itself when the material is distributed
- Very low residual tension, crack-free hardening and good adhesion
- Hardens quickly, foot traffic after 2-4 hours
- Tiles/floor tiles can be laid after 4-6 hours
- Ideal for levelling floors before putting in new floor coverings
- The surface itself can be directly used (traffic with soft tyres)
- High adhesional, compressive and tensile strength
- Layer thicknesses can be produced seamlessly up to 10 mm (up to 30 mm in indentations and small areas)

Characteristic data of the product:

Colour:	grey
Bulk density:	1.4 kg/litre powder
Water requirements:	5.0 litres per 25 kg powder
Consistency:	highly flowing capable/self-levelling after mixing
Working time:	20 - 30 minutes (depending on temperature)

Working temperature: +5° C to +25° C substrate temperature

Application thicknesses: seamless up to 30 mm

Density of the hardened

mortar: approx. 2.09 kg/dm³

Compressive strength

after 28 days: approx. 40 N/mm² (in accordance with DIN 1164)

Tensile bending

strength:

approx. 8-10 N/mm² (in accordance with DIN 1164)

Foot traffic:

after 2 - 4 hours (depending on temperature)

Vehicle traffic:

after 48 hours with soft tyres

Covering with -

- covers insensitive to moisture (e.g. tiles):

after 4 - 6 hours (depending on temperature)

- parquet, carpeting and plastic floor coverings:

2 - 4 days (depending on temperature and relative humidity)

Relö Levelling Layer is a high grade, factory-mixed, dry mortar with a special combination of cements, prepared mineral fillers, organic and inorganic additives.

Range of use:

Relö Levelling Layer is used as an early loadable, self-smoothing, levelling layer on uneven and rough concrete and cement screed surfaces in all indoor areas. Tiles/floor tiles can be laid after 4-6 hours directly on the hardened, plane coating in a thin bed procedure, e.g. with Relö Flex Cement or Relö Fast Flex Cement. The layer can also be covered with carpeting, parquet, PVC or linoleum after the levelling layer has dried.

Relö Levelling Layer can also be used directly, without a cover, for light mechanical loads. Examples: light vehicle traffic with soft tyres (air, rubber or super elastic up to 5 t axle load) in warehouses for light goods as well as cellars and storage

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spaces in homes and office buildings. Relö Levelling Layer should not be used for applications with special requirements on wearing resistance (use a hard stuff coating).

When used directly and with simultaneous wet loads, a protective coating with Viscacid BS 2000 is required. Relö Levelling Layer can be used in combination with Viscacid BS 2000 or without sealing on floor slabs with ground contact.

Level non-absorbent substrates such as e.g. bituminous mastic concrete, old ceramic/natural stone floors as well as wood floors with Relö Uniplan.

As a rule, **Relö Levelling Layer** is applied in a layer thickness range of up to 10 mm. Indentations and small areas up to 30 mm.

Substrates:

The substrate must be sound, clean, dry and free of substances that could interfere with the adhesion of Relö Levelling Layer (e.g. sinter layers, release agents, loose material, dust, oil, grease, etc.). If necessary, clean the substrate and remove non-load bearing layers (e.g. steel ball jetting, grinding, mechanical brushing) Always remove dust thoroughly after cleaning.

Afterward, prime the substrate with Relö Deep Primer W (solvent-free) twice, wet-on-wet, and allow to dry for at least 6 hours until no longer sticky. Avoid the formation of pools. This working operation does not require a lot of time or material but it considerably reduces the formation of air bubbles in the material while working and therefore helps achieve a more even surface.

Only weakly absorbent substrates can be coated without priming and a trial surface should be set up first. In this case, pre-wet the cleaned surface, scrape off standing water with a rubber wiper and pour the flow mortar onto the slightly damp surface (it should be more dry than wet). Always prime for coatings up to 3 mm layer thickness.

Remove the remains of any plastic cement that does not adhere soundly and coat the floor with undiluted Viscacid BS 2000 - transparent - as an adhesive primer. After 1 - 2 hours, the flow mortar is applied to the still tacky, transparent primer. Also prime for coatings as of 10 mm on smooth (not rough) screed substrates with Viscacid BS 2000 - transparent.

Mask edge and field joints with strips of foam rubber so that the levelling compound does not run into the joints.

Do not apply to heated substrates.

Directions:

Pour **5.0 litres** of water into a clean container and **add 25 kg = 1 bag Relö Levelling Layer**. This mixing ratio should be observed since the quality of working and execution depends on this to a very high degree.

Mix Relö Levelling Layer intensively with a mixer/paddle, e.g. BEBA mixer or a drill with a spiral mixing tool for at least 3 minutes until a homogenous mortar with good flow properties has been achieved.

Pour the levelling layer directly after mixing onto the prepared substrate and distribute with the Remmers wiper or toothed rubber blade.

Individual batches should be continuously worked to avoid seams.

The flow mortar levels itself during distribution. Rolling the surface with a spiked roller immediately after applying makes it easier to work and produces a practically mirror-smooth surface by de-airing the material better.

For a layer thickness up to approx. 7 mm, use a spiked roller with 10 mm long spikes. For a thickness greater than this, use a spiked roller with 20 mm spikes.

Working time depends on temperature and is **approx. 20 minutes** at 20° C.

For larger surfaces (greater than 500 m²), the use of a positive mixer with pump is recommended, e.g.:

- PFT mixing pump MS 2
- PFT ZP 3 (NV 2) + PFT Multimix
- Putzknecht S 36 or S 30 + TM 100
- Putzmeister S 5 EV-TM or RMP 1000
- Mixing pump Berö Tinu

In case of standing times of more than 20 minutes, empty the hoses and rinse out with water. Continuous mixers should not be used since mixing time is only a few seconds which requires clearly increased amounts of water and reduces the quality of the coating.

Notice:

Stiffened mortar cannot be made workable again by adding water or fresh mortar.

Do not use at substrate temperatures below 5°C or above 25°C. Lower temperatures lengthen, higher temperatures reduce working time.

Protect Relö Levelling Layer from drying out too quickly by protecting from wind and sun.

Place moisture-sensitive covers or apply sealants only after the coating has dried (depending on temperature 2-4 days at a residual moisture content < 3% by weight).

If Viscacid BS 2000 or Viscacid Acrylic Cement Varnish is to be subsequently applied as a coating or sealant, check the surface (scratch test). In individual cases, sinter dust may form on the surface caused by the way it is worked. Remove this layer by light sanding, then vacuuming before coating.

Tools and Cleaning:

Drill with spiral or helix mixing tool, BEBA mixing equipment or positive mixer, pump machines with a positive mixer, transport and pouring buckets, wiper or notched rubber blade for evenly distributing the material, spiked roller for fast de-airing.

Tools and equipment should be cleaned with water while the material is fresh.

Packaging, application rate, shelf-life:

Packaging: 25 kg paper bags

Application rate: Approx. 1.6 kg/m² per mm layer

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thickness

Shelf-life:

Approx. 12 months stored dry in closed bags on wooden grids, protected from moisture.

Protect eyes and skin. In case of skin irritation, wash thoroughly with plenty of water. In case of eye contact, rinse thoroughly with plenty of water and go to a doctor.

Relö Levelling Layer is low in chromates in accordance with TRGS 613.

Further information on safety during transport, storage and when handling as well as on disposal and ecology are found in the latest Safety Data Sheet.

Safety, ecology, disposal:

Relö Levelling Layer contains cement and reacts alkaline with moisture.

The statements above are compiled from our field of production and according to the latest technological developments and application techniques. Since application and working are beyond our control, no liability of the producer can be derived from the contents of this information sheet.

Any statements made beyond the contents of this information must be confirmed in writing by the producer.

In all cases, our general conditions of sale are valid.

With the publication of this Technical Information Sheet all previous editions are no longer valid.