



UFH-ADN10

Description:

UFH-ADN10 is a highly effective screed additive, which was especially developed for heated floorings and cement bonded bedding mortar (EN 13 813).

Areas of Use

Cement screeds for heated flooring constructions don't differ in respect of their mortar technological composition, the mechanical preparation and the required strength from the standard floating load screeds DIN 18 560 Part 2 "Screeds and Heated Floorings on Insulating layers" (floating screeds). With heated flooring constructions care must be taken to ensure that the Standard Norm Requirements of the screed during the laying are exactly met. The fresh screed mortar has to have certain properties which guarantee a complete envelopment / embedding of the hot water pipes or electrical heating lines and there should be no damaging influence on the built in materials.

Effectiveness

UFH-ADN10 spreads the surface tension of the mix water and in so doing helps the fine grain binding agent dissolve much better. The result is a homogenous easy to work with screed mortar which totally surrounds the hot water pipes or heating lines. As a result the addition of **UFH-ADN10** means the mix water needed can be reduced. A reduction of the water cement ratio results in an increase in the density of the hardened screed, but at the same time the mortar consistency remains the same. If the density of the load distribution screed slab is increased it results in, in respect of the warm technical properties of the floorings, an improvement of the heat conductivity and at the same time an increase of the heat storage capability.

Both of these points go towards an even heat distribution within this heated part of the building. The acquired properties of a freshly mixed mortar through the addition of **UFH-ADN10** cause - compared to a freshly mixed mortar without **UFH-ADN10** - an increase in compression and flexural strength.

Following the addition of **UFH-ADN10** the amount of air entrainment (bubbles) is hardly increased at all.

With **UFH-ADN10** a high water retentivity of the freshly mixed mortar is achieved i. e. a sweating or "bleeding" on the screed surface is prevented and the shrinkage crack tendency is reduced. Besides this a complete hydration of the cement is made more favourable and a higher surface strength (no sanding) is also achieved. **UFH-ADN10** is chlorine free (CL-content 0.006 %), so that no negative reactions with built in steel cores and / or heating components can occur.

The application of **UFH-ADN10** is not only limited to heated floorings, but is also highly recommended for the making of cement screeds with similar high grade quality features for other application areas.

Important

All heated screeds **must** be warmed up **before** being laid. The commissioning of the heated flooring (the warming up) has to be done according to DIN 4725 Part 4 "Hot water - Floor Heating". The humidity of the heated screed must be measured before the floor surfacing work begins (CM-instrument). The maximum humidity content must not exceed the levels set out in Tab. DIN 4725, Part 4.

Processing

Composition making, processing and curing should be carried out according to DIN 18 560 "Screeds and Heated Screeds on Insulating layers". The aggregate gravel, sand 0 - 8 mm has to, in respect of the nature (among other things, grain strength and settleable solids), meet DIN 4226 ("Aggregate for Concrete" and the particle composition of the screed aggregate DIN 1045 "Concrete and Reinforced Concrete".

Dosage

UFH-ADN10 is added on a basis of 0,8 -1 % of the cement weight in the making of screed mortar, that means 0,4 – 0,5 litre to 50 kg cement.

UFH-ADN10 is to be added at the same time as the first mixing water.

To make up an ESTROLITH" heating screed to the quality CT – C 20 – F " 4 strength grade a preliminary test checks flexural strength = 4 N/mm², compression strength = 25 N/mm².

The following example for the required amount of **UFH-ADN10** is used:

280 - 300 kg cement/m³
2,25 - 3 kg UFH-ADN10/m³

That corresponds to / m² heating screed surface:

22,5 - 30 g UFH-ADN10/cm screed thickness.

When using freshly mixed plant mortar the screed consistency should be supplied in stiff state.

The amount of **UFH-ADN10** is 2,3 - 3 litres per m³ of freshly mixed mortar. The addition takes place on site and it is put directly into the cement mixer. A further mixing of about 10 minutes is absolutely necessary in the cement mixer so as to get the best out of **UFH-ADN10**. If a retarder is used it is essential to make sure that it is compatible with the melamine based superplasticizer.

N. B.

No other additive should be mixed with **UFH-ADN10**.

Quality Control

UFH-ADN10 is subject to continuous quality checks by our own Quality Control Department. Only ingredients which come through our stringent testing are used in the production of **UFH-ADN10**.

Storage

When stored in a closed container in a frost free place and not in direct sunlight about 10 months.

Packaging

10 or 25 kg PE-containers (recyclable).

Smaller containers available upon request.

200 kg drums which have been stored for several weeks can sometimes suffer a slight reduction in the strengthening materials. In this case, ensure that **UFH-ADN10** is stirred before it is applied. There is no reduction in quality because of the above.

Delivery

Deliveries of the goods described are in accordance with our current general terms and conditions of delivery and payment. This technical information refers to things as we know them today and is technically right up to date (State of the art).