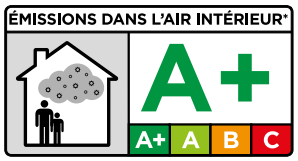
TRIOTECH-30

Sag resistant compound for walls and floors

- For interior and exterior applications, even beneath waterproofingin swimming pool, tanks and exterior areas
- Low tension
- Rapid setting
- For walls, ceilings and floors
- For thicknesses from 2 to 30 mm
- CE

Classification according to EN 13813: CT C25 – F4 A1 fl
Classification according to EN 1504-3: R2



TECHNICAL FEATURES:

TRIOTECH-30 is a polymer modified, cement based levelling mortar used to create even substrates for subsequent applications of waterproofing or tiling products.
TRIOTECH-30 is classified as repairing mortar for concrete R2 according EN 1504- 3.

CONTRACT ITEM SPECIFICATIONS:

TRIOTECH-30: non-structural repair of concrete elements, by manual or mechanical application of cementitious, one-component thixotropic mortar, specific for concrete elements with guaranteed durability, as TRIOTECH-30 by Benfer supplied with mark CE and conforming to performance requirements requested by Norm EN 1504-3, Class R2, for repair and non- structural restoration of concrete.

TRIOTECH-30: the supports need to be levelled with an anti-sag, levelling mortar for floors and walls, rapid hardening, applicable in thickness from 2 to 30 mm, as TRIOTECH-30 by Benfer.

TECHNICAL ASSISTANCE
INSURANCE GUARANTEE
TECHNICAL MEETINGS
PROFESSIONAL USE

AREAS OF APPLICATION:

For interior and exterior applications to level and smooth uneven mineral based wall, ceiling and floor areas that are to be waterproofed or clad with tiles. Also for use beneath waterproofing in swimming pool tanks and exterior areas. As long as you to install a suitable Benfer waterproofing, adherent and mineral -based membrane.
For volume restoration of non-structural concrete elements.

METHOD OF USE:

SUBSTRATE PREPARATION:

The mineral-based substrate must be load-bearing, solid, have a good grip and be free from materials that act as separating layers. The substrate must be load-bearing to loads in accordance with DIN 1055.
Remove separating layers, laitance and similar by suitable measures e.g. blasting or scabbling. Shrinkage processes should be largely concluded. Remove loose edges back to a sound base. Prime very porous substrates beforehand with STARPRIM. In floor areas, suitable substrates are concrete in accordance with DIN 1045, heated and unheated cement-based screeds in accordance with DIN 18560 and rapid setting cement-based screeds (e.g. SOLIDONE). TRIOTECH-30 is also suitable for exterior use and wet duty areas providing a suitable Benfer bonded waterproofing compound is installed. Not suitable as a wearing surface without additional appropriate finishes.

To determine a floor substrate's readiness to receive finishes carry out moisture measurements before applying TRIOTECH-30 using a carbide hygrometer (CM device). The CM moisture readings may not exceed:

- CT ≤ 2.0 CM % cement-based for screeds on insulation or separating layers
- CA anhydrite without underfloor heating ≤ 0.5 CM %
- CA anhydrite with underfloor heating ≤ 0.3 CM %

MIXING:

Mixing ratio:

4.75 – 5.0 litres water: 25 kg TRIOTECH-30
Mix TRIOTECH-30 with clean water in a clean mixing bucket until homogenous. Add the water to a clean mixing bucket and mechanically stir in the dry powder with a stirrer (approx. 300 – 700 rpm) until a homogenous, slump free smoothing paste is obtained. The mixing time is approx. 3–5 minutes. TRIOTECH-30 can be used for a minimum of 30 minutes at +23°C.

PRODUCT APPLICATION:

1. Moisten abundantly the absorbent supports.
2. Skim/spread out the properly mixed TRIOTECH-30 onto the moist substrate, but not wet substrate and distribute evenly with a suitable tool (lath) within the pot life. TRIOTECH-30 can be applied over the area up to 30 mm in one application.
3. After approx. 45–80 minutes dependent on the substrate, ambient temperature and thickness, rub with a damp open-pored sponge or felt-board and subsequently smooth with a steel float Possible further smoothing is best carried out when the first layer has hardened but is still recognisably damp from the dark colour. Do not exceed the maximum thickness of 30 mm.

HARDENING & PROTECTION:

Protect set TRIOTECH-30 from drying out too quickly (e.g. by repeated misting with water or covering) from high room temperatures, direct sunlight and drafts. The air, product and substrate temperature must not drop below +5°C during application and for the week afterwards.

ADVICE:

- Clean existing well adhered ceramic finishes, prime with STARPRIM and broadcast with 0.5–1.0 mm quartz sand to excess. Vacuum after cured. Subsequently smooth with TRIOTECH-30.
- Direct contact between cementitious mortars and magnesium screeds leads to destruction of the magnesium screed through a chemical reaction. Moisture penetrating out of the substrate from the rear must be excluded by appropriate measures. Mechanically roughen the magnesite substrate and prime with epoxy resin (approx. 600 gr/m^2). Broadcast 0.2 – 0.7 mm quartz sand to excess into the wet coat. After a further waiting time of approx. 12–16 hours trowel the TRIOTECH-30 up a maximum thickness of 30 mm.
- With calcium sulphate screeds at the time of levelling carried out with TRIOTECH-30 the moisture content measured with a carbide hygrometer may not exceed 0.5% without underfloor heating or 0.3% with underfloor heating. Thoroughly prime with STARPRIM and allow to completely dry. After a further waiting time of 12 – 16 hours apply TRIOTECH-30 up to a maximum thickness of 30 mm. Exclude subsequent moisture presence.
- Perimeter, bay, structural and movement joints should be brought through / inserted in the designated position and instated with suitable materials e.g. edge strips. Crack control joints should be cut to a third of the applied depth once the TRIOTECH-30 has hardened.
- An open textured surface causes greater material consumption.
- Higher temperatures accelerate and lower temperatures slow down the setting process.
- Do not re-life TRIOTECH-30 that has started to stiffen by adding water or fresh mortar. There is a risk of inadequate strength development.
- Protect areas not to be treated from exposure to TRIOTECH-30.
- Observe the appropriate current regulations.

E.g. DIN 18157, DIN 18352, DIN 18560, DIN EN 13813, DIN EN 13318, DIN 1055.
The BEB technical sheets distributed by the "Bundesverband Estrich und Belag e.V." The technical information "Coordination of cut-out areas for heated floor construction".
The ZDB (German tile association) technical sheets distributed by the professional German tile association:

1. "Bonded waterproof membranes"
2. "Finishes on calcium sulphate screeds"
3. "Movement joints in tile and slab cladding and finishes"
4. "Mechanical heavy duty ceramic floor coverings"
5. "Ceramic tiles and slabs, natural stone and concrete slabs on cement-based floor constructions on insulation"
6. "Ceramic tiles and slabs, natural stone and concrete slabs on heated cement-based floor constructions".
7. "Exterior finishes"
8. "Swimming pool construction" TKB (Technical committee for construction adhesives) technical sheet: "Technical description and application of cement-based floor smoothing compounds"

Please observe a valid EU health and safety data sheet.

CLEANING: With water while still in the fresh state.
CONSUMPTION: Approx. 1.5 kg/m^2 at 1mm thickness.
PACKAGING: TRIOTECH-30 is packaged in bags made of poly-coated paper of 25 kg and delivered in europallets of 1200 kgs.
STORAGE: Cool and dry in the original unopened packaging. Use opened packaging promptly.
SHEL LIFE: 12 months

PRODUCT TECHNICAL DATA	
Classification EN 13813:	CT C25 – F4 A1 fl
Classification EN 1504-3:	R2
Basis:	Premixed powder
Colour:	Grey
Storage and Duration:	12 months in the original closed package in a cool dry place
Danger of harm:	Possible irritation of the eyes and skin upon contact
Flammability:	No
Apparent mass volume:	1.200 kg/m^3
Mixture ratio:	4,75-5 liters of water per 25 kg bag
Mixing time:	3-5 min
Mixture consistency:	Thixotropic mortar
Mass volume of paste:	2000 kg/m^3
Application temperature:	From + 5° C to + 35° C
Pot life:	30 minutes*
Min/Max Thickness:	From 2 mm to 30 mm
Maximum grain size:	0,5 mm
Light traffic on dry supports:	After 3 hours*
Ceramic tiles laying:	After 4 hours*
Marble and stable natural stone laying:	After 6 hours*
Wood and resilient laying:	After 24 hours*
Final hardening:	7 days

Compressive strength at 24 hours and 28 days (EN 13892-2):	10 N / mm^2, 25 N/mm^2
Flexural strength at 24 hours and 28 days (EN 13892-2):	3 N/mm^2, 4 N/mm^2
Presence chloride ions (EN1015-17):	≤ 0,05%
Binding of adhesion (EN1542):	≥ 0,8 MPa
Shrinkage or expansion (EN12617-4):	≥ 0,8 MPa
Capillary absorption (EN13057):	≤ 0,5 Kg/m^{2}h
Thermal compatibility part 1 (EN13687-1) freeze-thaw:	≥ 0,8 MPa
Thermal compatibility part 2 (EN13687-2) storm:	≥ 0,8 MPa
Thermal compatibility part 4 (EN13687-4) dry cycles:	≥ 0,8 MPa
Resistance to temperature:	From –30°C to + 90°C

* at +23°C, 50% relative humidity

PLEASE NOTE: The information given in this chart is based on our best experience and indicative only. It must in any event be verified by the end user, who assumes all liabilities deriving from utilization of the product.