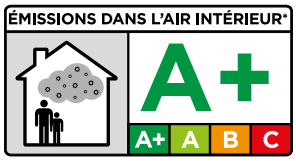
TRIOTECH-50

Anti-sag smoothing mortar, rapid hardening, for walls and floors

- For thicknesses from 2 to 50 mm
- Rapid hardening
- For walls, ceilings and floors
- For interior and exterior use
- Polymer modified
- Low shrinkage
- For internal and external application, even under waterproofing of swimming pools and external areas



AREAS OF APPLICATION:

For levelling and smoothing uneven mineral-based walls, ceilings and floor areas that are to be waterproofed or tiled. TRIOTECH-50 is suitable for exterior and wet duty areas when an appropriate Benfer bonded waterproof membrane is installed.

TECHNICAL ASSISTANCE

INSURANCE GUARANTEE

TECHNICAL MEETINGS

PROFESSIONAL USE

CONTRACT ITEM SPECIFICATIONS:

The supports need to be levelled with an anti-sag, levelling mortar for floors and walls, rapid hardening, applicable in thickness from 2 to 50 mm, as TRIOTECH-50 by Benfer.

METHOD OF USE:

SUBSTRATE PRERPARATION:

The mineral-based substrate must be load-bearing, solid, have a good key and be free from materials acting as separating layers. The load-bearing capacity of the substrate must be appropriate to take loads in accordance with DIN 1055. Separating layers, laitance and similar must be mechanically removed by suitable means e.g. surface abrasive blasting or scabbling. Ensure there is no moisture pressure from the negative side. Shrinkage processes must be largely at an end. Remove hollow edges back to a sound core. Pre-treat substrates by priming with BENFERPRIM. Suitable floor 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).

Before applying TRIOTECH-50, the readiness of a floor substrate to receive finishes is to be determined by moisture measurements with a carbide hygrometer.

The CM moisture content may not exceed:

- Cement-based screeds (CT) ≤ 2.0 CM% for screeds on insulation or separating layers
- Calcium sulphate screeds (CA) without underfloor heating ≤ 0.5 CM%
- Calcium sulphate screeds (CA) with underfloor heating ≤ 0.3 CM%

PRODUCT PREPARATION:

1. Prime the substrate with BENFERPRIM.
2. Mix TRIOTECH-50 with clean water in a clean mixing bucket until homogenous. Mixing ratio: Approx. 4 litres water:25 kg TRIOTECH-50 Add the water to a clean mixing bucket and mechanically mix in the dry powder whilst stirring with a drill and paddle (approx. 300-700 rpm) until a homogenous, thixotropic, smooth and paste like smoothing compound is achieved. The mixing time is approx. 3-5 minutes. Allow to stand for approx. 3 minutes, then re-mix. TRIOTECH-50 must be used within 30 minutes at +20°C.
3. Produce a scratch coat and then trowel apply TRIOTECH-50 and evenly spread with a suitable tool (plasterer's darby) within the working time. TRIOTECH-50 can be applied up to 50 mm thick in one coat. If desired it can be smoothed off after 30 minutes.
4. Dependent on the substrate, ambient conditions and thickness, the material can be smoothened with a grid float in order to remove surface irregularities and to leave a rough finish, which ensures a good bond for subsequently applied tile adhesives.
5. Where it is necessary to apply another coat of TRIOTECH-50, this is best carried out when the first coat is hard but still damp as recognised by the darker colour. Do not exceed a maximum thickness of 50 mm. The air, material and substrate temperature may not drop below +5°C during application and within the next 24 hours.

ADVICE:

- Clean, abrade and prime old, well bonded ceramic finishes with STARPRIM and allow to harden. Subsequently trowel over with a maximum of 30 mm TRIOTECH-50.
- Direct contact between cement-based tile mortars and magnesite screeds leads to the destruction of the magnesite 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-50 up a maximum thickness of 50 mm.
- With calcium sulphate screeds at the time of levelling carried out with TRIOTECH-50 the moisture content measured with a carbide hygrometer may not exceed 0.5% without underfloor heating or 0.3% with underfloor heating.
- 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-50 has hardened.
- Very porous substrates result in greater material consumption.
- High temperatures accelerate, lower temperatures slow down the setting process.
- Do not attempt to re-life TRIOTECH-50that has already started to stiffen, by adding more water or fresh mortar as there is a risk of inadequate strength development.
- Protect areas not being treated with TRIOTECH-50 from its effects.

Observe a valid EU Health & Safety data sheet.

Follow the relevant current regulations. For e.g. DIN 18157, DIN 18352, DIN 18560, DIN EN 13813, DIN EN 13318, DIN 1055.

The BEB technical sheets issued by the federal association for screeds and finishes. The technical information "Coordination of cut out points with heated floor constructions" The ZDB technical sheets issued by the Professional Association of the German tile industry:

1. "Bonded waterproof membranes"
2. "Finishes on calcium sulfate screeds"
3. "Movement joints in tile and slab finishes"
4. "Heavy duty ceramic tiled finishes"
5. "Ceramic tiles and slabs, natural and concrete slabs on cement-based floor constructions on insulation"
6. "Ceramic tiles and slabs, natural and concrete slabs on heated cement-based floor constructions"
7. "Exterior tiling"

TKB data sheet:
"Technical specifications and application of cement based floor smoothing compounds".

CLEANING: With water while still in the fresh state.
CONSUMPTION: 1.5 kg/m²/mm thickness.
PACKAGING: TRIOTECH-50 is available in 25 kg poly-coated paper bags on europallet of 1200 kg.
STORAGE: Cool and dry in the original unopened packaging.
SHELF LIFE: 12 months.

PRODUCT TECHNICAL DATA	
Classification EN 13813:	CT C25 – F4 A1 fl
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/m³
Mixture ratio:	4 liters of water per 25 kg bag
Mixing time:	3-5 minutes
Mixture consistency:	Thixotropic mortar
Mass volume of paste:	1700 kg/m³
Application temperature:	From + 5°C to + 35°C
Thickness:	From 2 mm to 50 mm
Maximum grain size:	0,5 mm
Light traffic on dry supports:	2 hours
Ceramic tiles laying:	After 3 hours
Marble and stable natural stone laying:	After 4 hours
Wood and resilient laying:	After 4 hours
Final hardening:	7 days
Compression strength after 24 hours, 28 days:	12 N/mm², 25 N/mm²
Flexural strength after 24 hours, 28 days:	3 N/mm², 4 N/mm²
Adhesion to the substrate:	>1,5 N/mm²
Temperature resistance:	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.