bondera® screed

mach 1

Accelerated-drying additive for cement screeds



Main features

- Drying time of only 21 days
- Increased early & final strength up to CT-C25-F4
- No curing under polyethylen (PE) needed
- BRE category A screed
- Suitable for inside, outside & permanently wet areas
- No fibre or mesh reinforcement needed

About this product

With unmodified cement screeds, drying times are hard to predict, as they depend on a number of factors. mach 1 changes that, significantly reducing drying time and making it predictable. Ideal for residential construction where moderate strengths are sufficient.

Technical specifications

Drying time	21 days
Strength class	CT-C20/25-F4
BRE category	B
Foot traffic	after 24 hours
Normal site traffic	after 72 hours
Commissioning UFH	after 6 days
UFH commissioning cycle	16 days
Working time	90 minutes

*Typical technical values achieved under construction site conditions at 5–30 °C and 40–60% relative humidity, for screed thicknesses ≤ 60 mm (unheated screeds) and ≤ 70 mm (heated screeds).

Screed categories, classification and recommended use

Screed category	Standard (STD)	Standard (STD)
Strength class	CT-C20-F4	CT-C25-F4
BRE category	B	B
Sand category	BS EN 13139 Cat. 1	BS EN 13139 Cat. 1
Cement category	CEM I/II 32.5 N/R	CEM I/II 32.5 N/R
Recommended use	Residential	Residential

Screed admixture designs (per screed pump)

Strength class	CT-C20-F4 (STD)	CT-C25-F4 (STD)
Sand	310 kg	310 kg
Cement	40 kg	50 kg
Dosage mach 1	300 ml	300 ml
W/C ratio	0.5 - 0.7	0.5 - 0.7

Screed admixture designs (per m³)

Strength class	CT-C20-F4 (STD)	CT-C25-F4 (STD)
Sand	1,550 kg	1,550 kg
Cement	200 kg	250 kg
Dosage mach 1	1,500 ml	1,500 ml
W/C ratio	0.5 - 0.7	0.5 - 0.7

Minimum screed thickness (at 2 kN/m² area loading)

Strength class	CT-C20/25-F4 (STD)
Bonded	15 mm
Unbonded	
Floating	45 mm
Underfloor heating*	

*Pipe coverage in mm
**Further information regarding min. screed thickness at different area or point loadings are available upon request or can be downloaded on our website.

Underfloor heating commissioning cycle

Day*	6-8	9-14	15-20	21	22
Temperature	25°C	45°C	35°C	25°C	Moisture test

*The UFH commissioning cycle of the screed modified with mach 1 may begin 6 days after the screed has been laid.

Mixing instructions

1. Fill the screed machine about half full with sand and the total amount of cement.
2. Add mach 1 to the first mixing water (usually 5-10 litres) and then fill the machine completely.
3. In the meantime, gradually add the required amount of water until a semi-dry consistency is achieved.
4. Mix at least 2 minutes.

Materials and standards

- CEM I or CEM II (A-L, A-LL, B-L, B-LL) following BS EN 197-1
- Aggregates following BS EN 13139
- Preliminary testing and suitability verification required prior to each use

Residual moisture test

- Before laying the floor covering, the residual moisture content of the screed must be measured by the floor layer.
- BS 8203 recommends a maximum relative humidity of 75% before laying floor coverings.

Construction site conditions

- The screed must be protected against excessively rapid drying caused by draughts, direct sunlight and low humidity.
- The screed must be protected from frost and water throughout the entire drying period.
- At temperatures below 5 °C, the setting of the binder (cement) is retarded or halted altogether.
- The screed surface must not be covered with sheeting, building materials (e.g. plasterboard) or the like, as this prevents the screed from drying out and can lead to inaccurate results when determining the moisture content.
- From the 2nd day after the screed has been laid, ventilation must be provided at least 3 times a day for 20 minutes in order to remove moisture in a controlled manner.
- Closed windows impede or prevent ventilation and considerably delay drying.

Technical data

- Form: liquid
- Colour: orange
- Density: 1.04 ± 0.02 kg/dm³
- Supply form: 10 litres, 20 litres, 1,000 litres
- Storage: store protected from frost, heat and direct sunlight
- Shelf life: at least 12 months (in sealed containers)

Safety and certificates

- CE certified
- Always observe general work hygiene when using our products.
- Further information on handling mach 1 can be found in our safety data sheets.

Comments

The raw materials we use as well as the products we manufacture are subject to comprehensive internal quality control procedures and are regularly inspected. When using this product, no additives from other manufacturers may be mixed in or applied.

Before application, it must be ensured that both our products and the selected method are suitable for the specific site conditions. The quality of the screed is significantly influenced by the properties of the sand and cement, the correct mixing ratio, and proper installation in accordance with approved screed technology.
As we have no control over actual site conditions or the execution of the work, no liability claims can be derived from the information contained in this data sheet. Upon publication of this edition, all previous versions shall become invalid.

For advice or further information, please contact our technical team.

As of 02 November 2026