

Screed in general

The screed for the MULTIBETON underfloor heating/cooling is laid „floating“; the screed lies on the insulation with a separating layer. There are edge insulation strips on the perimeter walls. Screeds are to be executed in accordance with the standards with regard to properties, strength and sound insulation. Reinforcement of screeds on the insulation layer is generally not necessary; the formation of cracks cannot be prevented by reinforcement. In some cases, reinforcement may be appropriate, the choice of which (purpose, type and design) is the responsibility of the planner and must be specified in the bill of quantities.

Cement screed

The cement screed for MULTIBETON underfloor heating/cooling is produced in accordance with the applicable standards, codes of practice and laws. The achievable values are subject to the influences of the type of cement, the age of the cement, the grading curve, the aggregates, the weather, etc. The data are average values and are subject to local conditions. When placing the cement screed, make sure that the outlet pot with its sharp-edged feet does not stand on the MB System pipes. The room temperature must not be below 5 °C while the screed is being applied. The cement screed must be protected from effects such as heat, frost and draughts for one week.

Cement screeds should not be walked on before 3 days have elapsed and should not be subjected to higher loads until 7 days have elapsed. Heating may only begin after 21 days of drying time. The flow temperature must not be higher than 55 °C.

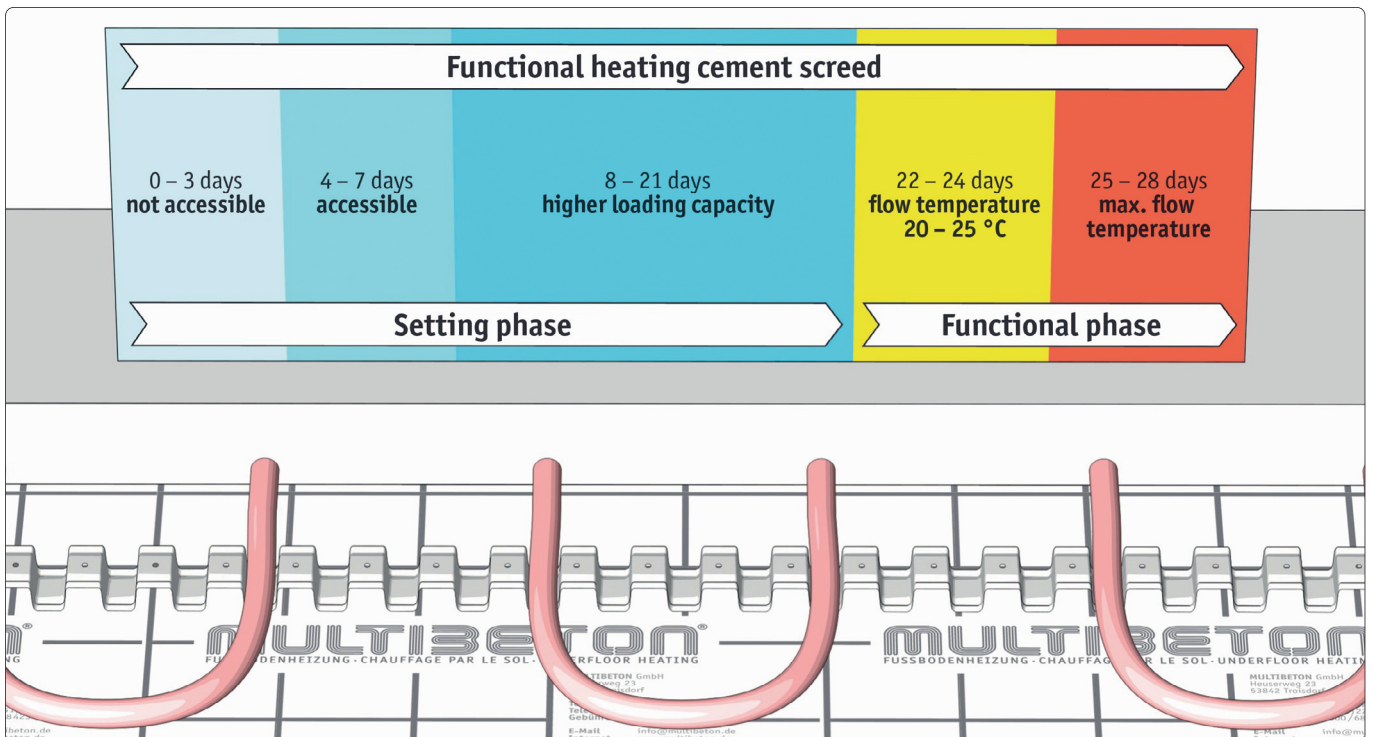
Functional heating

Cement screeds must be heated up before the top floor is placed. For cement screeds, heating begins after 21 days at the earliest with a flow temperature of 20 °C to 25 °C. After 3 days, the maximum flow temperature is set and maintained for 4 days.

Readiness for topsoil

Before applying the topsoil, an approved residual moisture measurement must be carried out. If the residual moisture limits are exceeded, a covering heating is necessary.

Stone, ceramic in thin bed	2.0 % residual moisture
Stone, ceramic in thick bed	3.0 % residual moisture
Vapour permeable textiles	3.0 % residual moisture
Vapour retarding textiles	1.8 % residual moisture
PVC, linoleum, rubber	1.8 % residual moisture
Parquet, laminate	1.8 % residual moisture



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Calcium sulphate flow screed

The anhydrous calcium sulphate (CaSO_4) is called “anhydrite”. Anhydrite achieves a higher strength than gypsum and has extremely good volume stability. Since calcium sulphate flowing screed always contains anhydrite residues that have not reacted with water, this type of screed must not come into contact with water later. This would lead to further reactions and an increase in volume. The calcium sulphate is applied as a screed with a flowable consistency. The transitions between the insulation boards and to the edge insulation strip must therefore be absolutely tight. Otherwise, the flowing screed could cause thermal and sound bridges. The internal temperature must not fall below + 5 °C during installation. The screed must be protected from harmful effects such as heat, driving rain or draughts for at least 2 days. These conditions are usually given when the building is closed. If moisture is to be expected due to vapour diffusion, a vapour barrier must be planned and installed.

With flow screed, the system pipes can run the risk of floating. If a hold-down grid is used, the flow screed can be applied in one step. Alternatively, 2/3 of the system pipes are first coated with flow screed. About one hour later, the final layer is applied. Flow screeds can usually be walked on after 24 hours and loaded after 48 hours. The flow temperature must not exceed 55 °C.

Functional heating

Calcium sulphate flow screeds must be heated before laying floor coverings. In the case of calcium sulphate flow screeds, heating should take place after 7 days at the earliest, according to the manufacturer's instructions. Initial heating begins with a flow temperature of 20 °C to 25 °C, which should be maintained for 3 days. Then the maximum flow temperature is set and maintained for another 4 days.

Readiness for finished floor

Before applying the finished floor, an approved residual moisture measurement must be carried out. If the residual moisture limits are exceeded, heating for covering is necessary.

Stone, ceramic in thin bed	0,5 % residual moisture
Stone, ceramic in thick bed	not applicable
Vapour permeable textiles	1,0 % residual moisture
Vapour retarding textiles	0,5 % residual moisture
PVC, linoleum, rubber	0,5 % residual moisture
Parquet, laminate	0,5 % residual moisture

