

Note on English translation / Hinweise zur englischen Fassung

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K-Sentials

VT08.de

Technical Information 2019-10

Drying schedule

For flowing screed manufactured with K-Sentials flowing screed compound **Duralpha***

General

Your flowing screeds manufactured using K-Sentials flowing screed compound Duralpha compound have been carefully planned and executed. Here you can find information and instructions for the time after application to ensure that your flowing screed floor can dry and harden without problems.

Decisive criteria are

- Correct and regular ventilation
- Climatic conditions (temperature + humidity)
- Natural drying (acc. to DIN 18560 screeds must be allowed to dry naturally)
- The thicker the screed, the longer the drying time

Note

The client is responsible to ensure provision of suitable conditions on the building site for drying the flowing screed.

Installation

The professional installer will install the screed in accordance with the manufacturers' instructions (on the basis of K-Sentials flowing screed compound Duralpha*). Measurement points will be employed with heating floor screed at which the residual moisture content can be subsequently measured. This will prevent damage to the heating tubes.

1 day after installation

The flowing screed is walkable after about 24h. The window can now be tilted.

2 days after installation

Regular ventilation should be undertaken 2 days after installation. The screed can only dry when the used, moist air is continuously replaced by fresh, dry air. The optimum situation is when the flowing screed is exposed to draughts with wide open windows and doors (ensure that it is protected against rain). Tilting the windows is not sufficient to ensure quick drying as the number of air exchanges is too low.

Drying of the screed surface should not be hindered by storing building materials (e.g. plaster boards) on the surface. The first 7 days in particular are decisive for a good drying process.

* Scope of application: Duralpha F 2003, Duralpha F 2201, Duralpha F 2202, Duralpha M 2011, Duralpha M 2015, Duralpha M 2211, Duralpha M 2215. The specifications in this drying schedule apply for calcium sulphate flowing screeds manufactured with at least 30 % K-Sentials flowing screed compound, a suitable aggregate particle size and no further admixtures or additives.

Ideal drying conditions are $\leq 65\%$ air humidity and temperatures not below $18\text{ }^{\circ}\text{C}$. The conditions can be checked using a hygrometer.

Flowing screed can dry even better in winter. Cold outdoor air generally contains less moisture than warm air. If the cold air is permitted to enter the house by ventilation and then heated, it can absorb the moisture from the screed very well.

Window position	Number of air exchanges per hour
Windows closed, doors closed, windows tilted	0 to 0.5
Roller shutters closed	0.3 to 1.5
Windows tilted, no roller shutters	0.8 to 4.0
Windows half open	5 to 10
Windows fully open	9 to 15
Windows and French doors fully open (opposite one another)	Approx. 40

3 days after installation

The screed can be lightly loaded after about 3 days (e.g. to place a ladder). Application of a full load to the floor is only possible after readiness for floor covering has been achieved, which is when it is sufficiently dry. When applied as a heated screed it is now possible to commence heat up with a flow temperature of $25\text{ }^{\circ}\text{C}$. A heating up protocol must be kept!

4 days after installation

With heated screed the flow temperature is now increased from $25\text{ }^{\circ}\text{C}$ to $55\text{ }^{\circ}\text{C}$.

Increasing the temperature in steps of $5\text{ }^{\circ}\text{C}$ is unnecessary.

For quick drying, a maximum flow temperature of max $55\text{ }^{\circ}\text{C}$ must be retained. Regular ventilation is also necessary for a heated screed.

(see the instructions above)!

More than about 20 days after installation

The residual moisture in the flowing screed is determined (screed material is removed from the entire cross-section) by the CM measurement process.

A foil can be applied for preliminary testing with a heated screed. CM measurement can be performed should no water condense under the foil within 24 hours.

The readiness for floor covering is achieved with the following levels of residual moisture (DIN 18560-1):

- Heating floor screed: $\leq 0.5\text{ CM } \%$
- Unheated $\leq 0.5\text{ CM } \%$

When the prescribed level of residual moisture is achieved (readiness for floor covering), reduce the flow temperature so that the surface temperature of the screed achieves $15\text{ to }18\text{ }^{\circ}\text{C}$. Now the floor covering can be applied.

Note

The drying is extended with larger screed thicknesses. Delaying the start of drying may negatively affect the drying properties of the screed.

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All given data are reference values with tolerance due to source and production.

Determination method according to Knauf test procedure, can be asked for, if required.

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