

AGGREGATE INDUSTRIES

Highflow S Product Guidelines

Unlike screeds containing cement, Highflow S cures by drying in a controlled manner. Beginning immediately after laying and for the next 2-3 days, the screed must be protected from rapid drying caused by the effects of draughts or direct strong sunlight. Subsequently, the relative humidity should be maintained at a low level, around 60%, to facilitate drying. Without these measures it is possible that the drying time will be extended.

Screed Drying Time

Under ideal drying conditions, (a warm, well ventilated room), Highflow S will dry at a rate of 1mm/day up to a maximum thickness of 40mm and then at a rate of ½ mm/day for thicknesses above this:

Example: 65mm Highflow Screed Drying time
(40mm x 1 day) + (25mm x 2 days) = 90 days (3 months)

It is possible to accelerate drying times employing simple methods such as ensuring good ventilation and removing any laitance. Do not store building materials or equipment on the screed as this will inhibit air flow. Drying aids such as dehumidifiers or warm air blowers will significantly accelerate drying but force-drying the screed using underfloor heating will give the shortest drying time. The following sections provide guidance on the use of these methods.

Drying Aids

Laitance removal: A thin layer of friable material may form on the surface of Highflow S as a normal part of the hardening process. This can reduce the rate at which moisture escapes, prolonging drying time. Removal of this layer approximately 1-3 weeks after application with a light sanding will allow free flow of water vapour and assist the drying of the screed.

Dehumidifiers: Dehumidifiers may be used as early as 7 days after placing of Highflow S to assist with drying. Select a closed system, one that drains the condensed water to a point outside the area being dried or into a closed tank to ensure that any moisture is permanently removed whilst the warm air dries the screed. If the water collection vessel is not sealed and emptied as required moisture will be re-circulated, extending the drying time.

Warm air blowers: When used to lift the temperature and provide a flow of dry air, this method will reduce drying times by increasing the rate of evaporation from the surface of the screed. When using this

method it is essential to ensure the room/s have adequate ventilation to prevent the air becoming saturated.

Forced Drying

The forced drying of Highflow S can be achieved by controlled operation of the underfloor heating system as set out in BS1264: 2009 Part 4 clause 4.4. Forced drying should not start earlier than 7 days after the screed has been placed.

The system water temperature should be slowly raised in 4-5°C increments until the temperature reaches 20-25°C. This should be maintained for at least 3 days after which the water temperature may be gradually raised again in 4-5°C increments until the system operating temperature or a maximum water temperature of 50-55°C has been reached. This should be maintained for a further 4 days before returning to ambient temperature in readiness to receive floor finishes. Please note, temperatures above 55°C can damage Screed Highflow

If, when tested, the residual moisture content is too high and further drying is required, it is possible to operate the heating system, as described above for a further 7 days. As noted previously, adequate ventilation is essential to maintain drying conditions.

The level of moisture that is acceptable when laying floor finishes varies depending on the type and product and the manufacturer's advice should be sought; however, when applying impermeable finishes, such as vinyl, residual moisture may cause failure at a later date.

After drying, to ascertain the suitability for acceptance of floor finishes, the residual moisture content must be determined using a test procedure approved by the covering manufacturer: Typical values are 0.5% for impermeable finishes such as vinyl and tiles and 1.0% for carpets. Once dry, it is essential that the screed is protected from accidental spillages and leaks, (central heating pipes etc). Should these occur, the exposed screed will require further drying to attain the required moisture content and, in the worst case, drying time will be similar to that of freshly placed screed.

The information provided is supplied in good faith and in accordance with accepted good site practice. It is intended solely as a guide to the drying of Highflow S and will be greatly influenced by individual site conditions.



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