

# Product information

## Winter working guidelines for Topflow Screed C

### COLD WEATHER WORKING FOR ALL CEMENTITIOUS MATERIALS

**British standards stipulate** (BS8204 Part 7:2003 section 7.2.2 - temperature) that the temperature of both the base slab and the air in the area that concrete or screed is to be installed should always remain in the range +5°C to +30°C. This applies to the period of time that the material is being installed and also subsequently for at least 72 hours.

*Please note that in cold conditions it can take some time to raise the temperature of a cold concrete base.*

If mixing and laying are to proceed during either hot or cold weather, measures should be taken to ensure that stored materials are maintained at between 5°C and 30°C, ideally at about 15°C to 20°C.

Installing concrete and screed products in very warm conditions can result in a loss of working time, and hence less effective self-smoothing, over-rapid drying and a risk of some shrinkage cracking. In very cold conditions there will be extended hardening and drying times and a risk of frost damage.

**NHBC regulations 2017** (section 9.3.4) also advise that concrete and screed should not be installed during weather conditions which could adversely affect the finished construction, and suggest that in cold weather, they should not be installed. Material that is damaged by cold weather should be removed and replaced.

### TEMPERATURE EFFECT ON TOPFLOW SCREED C

At temperatures below 5°C Topflow Screed C can react in the following ways:

#### CRACKING

This may occur due to the ambient temperature impacting on the screed's ability to hydrate sufficiently, meaning the early set is suppressed reducing the early strength gain of the material. This results in the tensile stresses built up within the screed (due to hydration) being greater than the screed's strength, causing the screed to crack.

### SOFT SURFACE

If the ambient temperature of the screed falls to 2°C or below, the hydration at the surface of the screed will be suppressed or even stop. This will cause a dusty soft top to the surface ranging from a depth of 1mm to 10mm.

If the screed is allowed to freeze this may cause the hydration process to stop, causing the whole depth of the screed to retard and be soft through its full section.

### ENVIRONMENT

The site in question must be able to maintain an ambient internal temperature of 5°C or higher for a minimum of 72 hours.

The building must be completely air tight including windows and doors. Sheeting and boarding up open areas is not acceptable as temperature fluctuations and airflow may affect hydration.

### PLACING TOPFLOW SCREED C

Do not leave the placement hose in the middle of the slab and push the Topflow Screed C over long distances. It will affect the strength of the product even though there will not be any visual defect in the placed product. The end of the hose should be held a minimum of 300mm above the surface of the slab.

### MOISTURE EVAPORATION BARRIER

Once the Screed is in place it should be dappled twice, after the second pass the moisture suppressant should be sprayed on the surface of the screed, suggested minimum coverage for 1ltr is 10m<sup>2</sup>.