

Working with the weather

The substrate should be protected as previously described in Section 7 prior to and during application and curing. Work should not be undertaken outside the temperature range of 5°C to 35°C.

Freshly applied materials should be protected from excessive temperature (either very low or very high), direct rain and rapid drying conditions. Common to all cementitious materials, inclement weather or long periods of

dampness will encourage the phenomenon of efflorescence (commonly known as 'lime bloom').

Low temperature

Do not work with frosted materials, on frosted substrates or apply any formless wet material in temperatures below 5°C or if low temperature can be expected during the drying and curing period.

In cold weather, or if frost is forecast, stop work in time to allow the material to set sufficiently to prevent frost damage. The drying conditions will vary according to wind, temperature and humidity and several hours may be required.

In frosty weather, where minimum temperature conditions cannot be met, work should only proceed when suitable protection is provided and the temperature raised.



Inclement weather

Do not work during rainfall, if rainfall is anticipated during initial set or allow rain to strike newly applied material, particularly if strong colours in cementitious products are being used.

Do not render onto saturated backgrounds as this can impair bond strength and cause unsightly lime bloom to occur.

The absorption properties of the background is critical and if there is doubt as to the amount of water in the substrate, tests should be carried out on trial areas to determine the effect on render and finish coats. Backgrounds are more likely to give problems and contain an excessive amount of water where work has been stopped for a period due to inclement weather.

External insulation projects do not generally suffer the same problems of saturated backgrounds for rendering.

Uneven suction across backgrounds for either render or finishes may be reflected in patchiness when completed.



Hot weather

Hot weather provides rapid drying conditions that affects newly applied materials, causing synthetic materials to dry and cementitious materials to 'pick up' or stiffen much quicker than normal. Warm, dry conditions with stiff breezes can equally provide rapid drying conditions.

In hot weather, application of both renders and finishes should be carried out in the shade following the sun around the building.

During periods of sustained hot and dry weather, the substrate may need cooling with an even mist spray of clean water before application to avoid retained heat affecting freshly applied mortar. Note this should be done in a controlled manner, so as to avoid saturating the substrate as this can induce cracking. This advice is particularly relevant when rendering onto aerated autoclaved blocks.

Cementitious products need to retain water for sufficient time to enable the cement to hydrate fully in order to reach full strength. Rapid drying conditions may therefore leave render materials weak.

Protection

Vulnerable areas or finished surfaces already in place on the construction need to be protected from damage or spillage during application of materials, by the use of polythene sheet, thin boarding or by masking with paper and tape.

Cementitious materials especially, must be protected during their initial setting to prevent damage by rainfall. This can be done using tarpaulins, close mesh netting, polythene or other suitable material. Coloured mortars can be discoloured by pigment being washed out of the 'green' mortar. Damage caused by mortar materials staining brick or brick slip faces cannot be effectively removed.

Newly applied renders and finishes must be protected against damage from water discharges from overflows, unfinished rainwater outlets or other points by providing appropriate temporary arrangements to direct water discharge away from materials.

Artificial enclosures round scaffolding can be formed using tarpaulins, close mesh netting, polythene or other suitable material to overcome adverse weather conditions. Care must be taken to ensure that flapping sheets blowing in the wind do not damage the unset material.

If artificial heat sources are used to maintain minimum temperatures, care should be taken to ensure that steady temperatures are achieved and that hot/cold spots do not occur on the wall surface. The temperature range within the enclosure should be minimum 4°C, maximum 10°C.

Ensure that scaffold lifts are clean at all times. Heavy rain can splash surface dirt on to finished surfaces, permanently staining them.



During hot, rapid drying weather newly finished cementitious render materials may need to be actively cured by spraying with a light spray of clean water two or three times a day for two or three days after application. This is particularly relevant when working internally with these products

In common with all cementitious mixes, renders will not achieve full strength for approximately 28 days. During this period the finished work is more vulnerable to damage. Once applied, the colour of render will soften over a period of months to reach its natural hue.

