

# Technical Bulletin

## Hot Weather Working - Mortar



### HOT WEATHER WORKING

Hot weather conditions can make masonry construction more problematic and requires extra care, planning and consideration to ensure these conditions do not adversely affect placement and the quality of the finished masonry.

### KEY ISSUES

In hot weather water loss from the mortar is the key issue. If insufficient water is available to hydrate the cement the resulting strength of the mortar may be significantly lower producing a weak crumbly mortar. Good hydration of the cement and available water is also critical to ensure a strong effective bond at the interface between the mortar and the masonry.

High temperatures increase the likeliness of water loss from both an increase rate of hydration and also evaporation, both of these factors will reduce the setting time (shortening board life) meaning there is less time to work with and finish the mortar.

### PREPERATION

In hot weather raw materials, masonry units, and tools can all absorb heat all of which can potential cause issues on site for example; warm masonry units can have an increased rate of suction than normal absorbing further water from the mortar.

- Store masonry units out of direct sunlight and dampen (not saturate) before use.
- Warm mixing water will further shorten the setting time – use colder mains water rather than water stored outside in large containers.
- Storing sand and cement out of direct sunlight and keeping sand damp and covered will minimise the need to overly increase water contents.
- Admixtures such as water retentivity aids and retarding plasticisers can be beneficial but guidance on their use should be sought from the admixture manufacturer.

### MIXING AND PLACING

During hot weather the increased rate of water loss will result in mortar losing workability more rapidly. Mortar should be mixed in smaller batches to ensure it can be used quicker. Masonry units should be placed sooner and mortar should not be spread too far ahead of work.

Mixing equipment should also be shaded from direct sunlight and not too far from the point of use. Tools and mortar boards should also be rinsed with cool water before they come into contact with fresh mortar.

### FINISHING

Final tooling should be conducted sooner to ensure a satisfactory finish can be obtained. As soon as practicably possible after placing damp hessian and plastic sheeting should be used to prevent further moisture loss and protect against the excessively rapid drying conditions.

For further information contact:

Hanson Cement  
Ketton  
Stamford  
Lincolnshire  
PE9 3SX

[Hanson.co.uk](http://Hanson.co.uk)

Customer Services:

Tel: 0330 123 4525

Email: [cement@hanson.com](mailto:cement@hanson.com)

