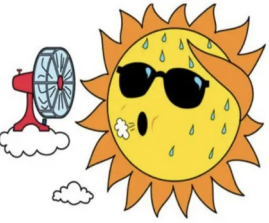

Weatherwise

08.07.2025

Warm Weather Masonry Guidelines

As temperatures rise, masonry operations face unique challenges that can affect the quality of the work. Hot weather conditions defined by high ambient temperatures, direct sunlight, and drying winds can accelerate the setting of mortar and grout, reduce workability, and increase the risk of cracking and poor bond strength. To maintain performance standards and ensure durable results, it's critical to plan ahead, adjust work practices, and implement protective measures tailored to hot weather conditions. Follow the most recent BIA's Hot Weather Table to achieve the best results.

Corey S. Zussman, AIA, NCARB - QA/QC Vice President

- ❒ Obtain your contractor's hot weather procedures discussed on the masonry pre-installation meeting and follow procedures.
- ❒ Consider adjusting the time of masonry installation to take advantage of cooler temperatures, such as early morning or night time placement.
- ❒ Store cementitious materials (mortar, grout) in a cool, shaded area. Avoid using sand that has been sitting in the sun—keep aggregates cool and damp if possible.
- ❒ Use cool water when mixing mortar/grout to lower initial temperature.
- ❒ Monitor and record air temperature, surface temperature, wind speed, and relative humidity.
- ❒ Mix smaller batches to prevent premature setting and keep mortar in the field in the shade.
- ❒ As always, ensure head and bed joints are full to avoid shrinkage cracks.
- ❒ Tool joints as soon as possible to reduce evaporation and cracking in the joint.

TABLE 1

Requirements for Masonry Construction in Hot and Cold Weather per the TMS Specification

	Temperature[1]	Preparation Requirements (Prior to Work)	Construction Requirements (Work in Progress)	Protection Requirements (After Masonry Is Placed)
Hot Weather	Above 115 °F, or 105 °F with a wind velocity over 8 mph (46.1 °C, or 40.6 °C with a wind velocity greater than 12.9 km/hour)	Shade materials and mixing equipment from direct sunlight. Comply with hot weather requirements below.	Use cool mixing water for mortar and grout. Ice is permitted in the mixing water prior to use. Do not permit ice in the mixing water when added to the other mortar or grout materials. Comply with hot weather requirements below.	Comply with hot weather requirements below.
	Above 100 °F, or 90 °F with a wind velocity greater than 8 mph (above 37.8 °C, or 32.2 °C with a wind velocity greater than 12.9 km/hour)	Provide necessary conditions and equipment to produce mortar having a temperature below 120 °F (48.9 °C). Maintain sand piles in a damp, loose condition.	Maintain temperature of mortar and grout below 120 °F (48.9 °C). Flush mixer, mortar transport container, and mortar boards with cool water before they come into contact with mortar ingredients. Maintain mortar consistency by retempering with cool water. Use mortar within 2 hours of initial mixing.	Fog spray newly constructed masonry until damp, at least three times a day, until the masonry is three days old.

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