

CEMENTITIOUS GROUTING - HOT WEATHER

High temperatures accelerate the set time and decrease working time of cement based grouts. The guidelines below may compensate for these conditions.

- A. Materials should be pre-conditioned so that the grout mix temperature is between 50°F and 95°F (10°C and 35°C) . Due to the mass of palletized material, up to 72 hours of pre-conditioning may be required. Store grout in a shaded area out of direct sunlight.
- B. All surfaces in contact with cement based grout shall be pre-conditioned and maintained below 95°F (35°C) for 8- 24 hours. Pre soaking of surfaces, mixing equipment and wheelbarrows with cold or iced water will facilitate cooling of surfaces.
- C. Mix grout using cold or iced water. **Do not** put ice directly in with grout during mixing.
- D. Provide shading during grout placement and where feasible, place grout when temperatures are decreasing, at night or early morning. Provide protection from excessive wind to reduce rapid drying and evaporation of water from exposed grout surfaces.
- E. Begin wet cure immediately after grout takes initial set and continuously wet cure all exposed grout surfaces using wet rags, burlap or burlene. Place plastic sheeting over material used for wet cure to ensure continuous wet cure. Monitor condition of material used for wet cure to ensure drying does not occur.
- F. After a minimum 24 hour continuous wet cure, continue wet cure for an additional 48 hours or coat all exposed grout surfaces with an approved curing compound meeting the water retention requirements of ASTM C 309.

REFERENCE:

ACI 351.1R-R99

“Grouting Between Foundations and Bases for Support of Equipment and Machinery”

PIP/API RP 686

“Process Industry Practices”

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