

CTS Cement Manufacturing

Shortform Specification for:
Type K™ Concrete

SECTION 03 30 00 CAST-IN-PLACE CONCRETE

Use Type K cement to make Type K shrinkage-compensating concrete. Manufacturer shall be CTS Cement Manufacturing Corp., 11065 Knott Avenue, Suite A, Cypress, CA, 90630. Phone: 800-929-3030. Website: www.rapidset.com

- A. Approved Type K Cements:
 - 1. Pre-blended CTS Type-K Cement
 - 2. Komponent® or CTS System-K™ used with Type I, II, or V Portland cement conforming to ASTM C150 at approximately 15% Komponent® and 85% Portland cement. The percentages will be determined by a laboratory approved by CTS Cement Manufacturing performing ASTM C806 testing. Komponent® and Portland cement samples shall be delivered to the laboratory 6 weeks prior to the first concrete placement. [Note to specifier: CTS Cement Manufacturing needs to approve the laboratory, since many laboratories are unfamiliar with the testing required for Type K cement and Type K concrete.]
- B. Type K cement shall provide expansion from .04% to .10% at 7 days when tested in accordance with ASTM C806, provide expansion from .05% to .06% at 7 days when tested in accordance with ASTM C878, and meet ASTM C845 as a Type K cement.
- C. If CTS Type-K Cement or Komponent is used, structural steel reinforcing shall have a minimum cross-sectional area of .15% and steel reinforcing specified as temperature steel for crack control can be eliminated from structural concrete, such as tank walls. If CTS System-K™ is used, no steel reinforcement is required for non-structural concrete, such as slabs on grade,
- D. Sand and coarse aggregate shall comply with ASTM C33 and water shall be potable. Admixtures shall be approved by manufacturer. Water/cement ratio shall be .45 for exterior concrete and .50 for interior concrete. Slump shall be 5" ± 1". Mix and place per manufacturer's recommendations. Pre-pour conference shall be at least 1 week before first concrete placement.
- E. Start water cure as soon as it can be done without marring the surface. Water cure for 7 days. Surface shall be kept continuously wet. Wetting and drying of the surface shall not be allowed.