

# **Specification for High-Strength Concrete in Moderate to High Seismic Applications**

Reported by ACI Innovation Task Group 4  
and Other Contributors



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First printing  
March 2007

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*This specification is a reference specification that the licensed design professional can make applicable to any construction project by citing it in the project specifications. The licensed design professional supplements the provisions of this reference specification as needed by designating or specifying individual project requirements.*

*This specification covers cast-in-place, normalweight, high-strength concrete in structures that must be designed for moderate to high seismic applications. More specifically, this specification applies to structures:*

- *Located in Seismic Zones 2, 3, or 4 defined by the Uniform Building Code;*
- *Assigned to Seismic Performance Categories C, D, or E of the BOCA/ National Building Code (1993 and subsequent editions) or the Standard Building Code (1994 or subsequent editions); or*
- *Seismic Design Categories C, D, E or F of the International Building Code or the National Fire Protection Association (NFPA) 5000 Building Construction and Safety Code.*

*Irrespective of seismic hazard, seismic performance, or design category, these requirements shall apply to normalweight, high-strength concrete in intermediate or special moment frames and intermediate or special structural walls.*

**Keywords:** curing; high-strength concrete; mixture proportioning; placement; quality control; seismic application; temperature; trial batch.

## NOTES TO SPECIFIER

This specification is incorporated by reference in the project specification using the wording in P3 of the preface and including information from the mandatory requirements, optional requirements, and submittals checklists following the specification.

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**P1.** ACI Specification ITG-4.1 is intended to be used by reference or incorporation in its entirety in the project specification. Do not copy individual parts, sections, articles, or

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**P5.** The specification is written to the contractor. When a provision of this specification requires action on the contractor’s part, the verb “shall” is used. If the contractor is allowed to exercise an option, the verb “may” or, when limited alternatives are available, the conjunctive phrase “shall either... or...” is used. Statements provided in the specification as information to the contractor use the verbs “may” or “will.” Informational statements typically identify activities or options that “will” be taken or “may” be taken by the owner or the licensed design professional.

ACI ITG-4.1-07 was adopted November 7, 2006 and published March 2007.  
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