IN-LB Inch-Pound Units

An ACI/TMS Standard

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Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies

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(Reappoved 2019)

Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies

An ACI and TMS Standard

Reported by ACI Committee 216 joint with TMS

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Fire resistance of building elements is an important consideration in building design. While structural design considerations for concrete and masonry at ambient temperature conditions are addressed by ACI 318 and TMS 402, respectively, these codes do not consider the impact of fire on concrete and masonry construction. This standard contains design and analytical procedures for determining the fire resistance of concrete and masonry members and building assemblies. Where differences occur in specific fire requirements between this standard and ACI 318 and TMS 402, as in the case of cover protection of steel reinforcement, the more stringent of the requirements shall apply.

Keywords: beams; columns; compressive strength; concrete slabs; fire endurance; fire ratings; fire resistance; fire tests; masonry walls; modulus of elasticity; prestressed concrete; prestressing steels; reinforced concrete; reinforcing steel; structural design; temperature distribution; thermal properties; walls.

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