

An ACI and TMS Standard

Thermal Properties of Concrete and Masonry for Use in Determining Energy Code Compliance for Low- Rise Residential Buildings— Code Requirements and Commentary

Reported by Joint ACI-TMS Committee 122



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Thermal Properties of Concrete and Masonry for Use in Determining Energy Code Compliance for Low-Rise Residential Buildings—Code Requirements and Commentary

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This Code prescribes minimum design and construction requirements for energy efficiency of building envelopes of new buildings and additions to buildings. It applies to buildings having concrete walls, roofs, or floors; masonry walls; and masonry veneer, including veneer attached to frame walls as part of the building envelope. It also provides minimum thermal properties for these assemblies for code compliance.

This Code is applicable to low-rise residential buildings that use either electricity from any generation source or fossil fuel. It can be used with applicable energy codes and standards such as the International Energy Conservation Code (IECC).

Keywords: energy efficiency; specific heat; thermal conductivity; thermal diffusivity; thermal resistance; thermal transmittance.

CONTENTS

PREFACE, p. 2

CHAPTER 1—GENERAL, p. 3

- 1.1—Scope, p. 3
- 1.2—General, p. 3
- 1.3—Purpose, p. 3
- 1.4—Applicability, p. 3
- 1.5—Interpretation, p. 4

CHAPTER 2—NOTATION AND DEFINITIONS, p. 5

- 2.1—Code notation, p. 5
- 2.2—Code definitions, p. 5

CHAPTER 3—REFERENCED STANDARDS, p. 7

- 3.1—American Concrete Institute (ACI), p. 7
- 3.2—American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), p. 7
- 3.3—ASTM International, p. 7
- 3.4—International Code Council (ICC), p. 8

CHAPTER 4—GENERAL REQUIREMENTS, p. 9

- 4.1—Material requirements, p. 9
- 4.2—Climate zones, p. 9
- 4.3—Building envelope compliance, p. 9

CHAPTER 5—PRESCRIPTIVE METHOD, p. 10

- 5.1—Concrete and masonry, p. 10
- 5.2—Other assemblies, p. 12

CHAPTER 6—BUILDING ENVELOPE TRADE-OFF METHOD, p. 13

- 6.1—Building envelope trade-off method, p. 13

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