



AISI S201–07



**American
Iron and Steel
Institute**

AISI STANDARD

North American Standard for Cold-Formed Steel Framing– Product Data

2007 Edition

Endorsed by:



Steel Framing Alliance™



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The material contained herein has been developed by the American Iron and Steel Institute Committee on Framing Standards. The Committee has made a diligent effort to present accurate, reliable, and useful information on cold-formed steel framing design and installation. The Committee acknowledges and is grateful for the contributions of the numerous researchers, engineers, and others who have contributed to the body of knowledge on the subject. Specific references are included in the *Commentary*.

With anticipated improvements in understanding of the behavior of *cold-formed steel* framing and the continuing development of new technology, this material will become dated. It is anticipated that AISI will publish updates of this material as new information becomes available, but this cannot be guaranteed.

The materials set forth herein are for general purposes only. They are not a substitute for competent professional advice. Application of this information to a specific project should be reviewed by a design professional. Indeed, in many jurisdictions, such review is required by law. Anyone making use of the information set forth herein does so at their own risk and assumes any and all liability arising therefrom.

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PREFACE

The American Iron and Steel Institute Committee on Framing Standards has developed AISI S201, the *North American Standard for Cold-Formed Steel Framing – Product Data*, to standardize requirements for *cold-formed steel* framing products. This standard is intended to establish and encourage the production and use of standardized products in the United States, Canada and Mexico.

The Committee acknowledges and is grateful for the contributions of the numerous engineers, researchers, producers and others who have contributed to the body of knowledge on the subjects. The Committee wishes to also express their appreciation for the support of the Steel Framing Alliance and Canadian Sheet Steel Building Institute.

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NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING – PRODUCT DATA

A. GENERAL

A1 Scope

This standard provides criteria, including material and product requirements for *structural members* and *non-structural members* utilized in *cold-formed steel* framing applications where the specified minimum *base steel thickness* is between 18 mils (0.0179 inches) (0.455mm) and 118 mils (0.1180 inches) (2.997mm).

The components covered in this standard include *C-shape studs, joists, track*, U-channels, furring channels and angles.

This standard shall not preclude the use of other products not meeting the criteria herein, when the other products demonstrate equivalent performance for the intended use to those specified in this standard. Where there is a conflict between this standard and other reference documents, the requirements contained within this standard shall govern.

This standard shall include Sections A through D inclusive.

A2 Definitions

Where the following terms appear in this standard in italics, such terms shall have the meaning herein indicated. Terms included in square brackets shall be specific to *LSD* terminology. Where a country is indicated in square brackets following the definition, the definition shall apply only in the country indicated. Terms not defined in Section A2 shall have ordinary accepted meaning for the context for which they are intended.

Base Steel Thickness. The thickness of bare steel exclusive of all coatings.

Cold-Formed Sheet Steel. Sheet steel or strip steel that is manufactured by (1) press braking blanks sheared from sheets or cut length of coils or plates, or by (2) continuous roll forming of cold- or hot-rolled coils of sheet steel; both forming operations are performed at ambient room temperature, that is, without any addition of heat such as would be required for hot forming.

Cold-Formed Steel. See *Cold-Formed Sheet Steel*.

C-Shape. A *cold-formed steel* shape used for *structural* and *non-structural members* consisting of a *web*, two (2) *flanges* and two (2) *lips* (*edge stiffeners*).

Design Load. Applied *load* determined in accordance with either LRFD load combinations or ASD load combinations, whichever is applicable. [USA and Mexico]

Design Thickness. The steel thickness used in design.

Designation Thickness. The minimum *base steel thickness* expressed in mils and rounded to a whole number.

Edge Stiffener. See *Lip*.

Factored Load. Product of a specified load and appropriate load factor. [Canada]

Flange. For a *C-shape*, U-shape or *track*, that portion of the framing member that is perpendicular to the *web*. For a furring channel, that portion of the framing member that connects the *webs*.