INTERNATIONAL STANDARD

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Cold-reduced carbon steel sheet of structural quality

Tôles en acier au carbone laminées à froid, de qualité destinée à la construction



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Foreword

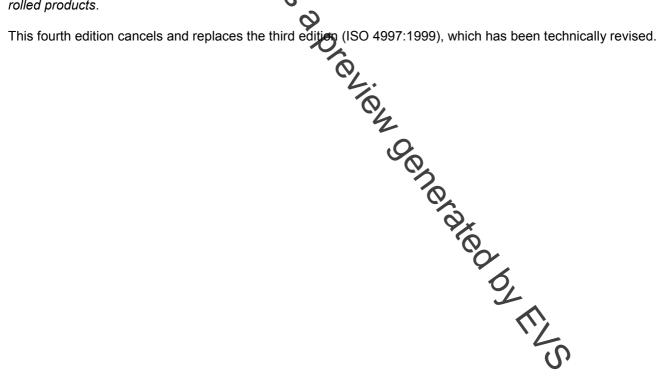
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ISO 4997 was prepared by Technical Committee ISO/TC 17, Steel, Subcommittee SC 12, Continuous mill flat rolled products.



Cold-reduced carbon steel sheet of structural quality

1 Scope

This International Standard applies to cold-reduced steel sheet of structural quality in grades CR220, CR250, CR320 and CH550, usually without the use of microalloying elements. The product is intended for structures that may include bolting riveting and welding. It is generally used in the delivered condition for fabricating purposes, such as bending forming or welding.

This product is commonly produced in thicknesses from 0,36 mm up to 3 mm and in widths of 600 mm and over, in coils and cut lengths.

Cold-reduced sheet less than 600 wide may be slit from wide sheet and will be considered as sheet.

This International Standard does not cover steels designated as commercial quality or drawing qualities (covered in ISO 3574), cold-reduced carbon steel sheet according to hardness requirements (covered in ISO 5954), cold-reduced steel sheet of higher strength with improved formability (covered in ISO 13887), or cold-reduced steel sheet of high tensile strength and low yield point with improved formability (covered in ISO 14590).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6892, Metallic materials — Tensile testing at ambient temperature

ISO 16162, Continuously cold-rolled steel sheet products — Dimersional and shape tolerances

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

microalloying elements

elements such as niobium, vanadium, titanium, etc, added singly or in combination to obtain higher strength levels combined with better formability, weldability and toughness compared to non-alloyed steels produced to equivalent strength levels

3.2

cold-reduced steel sheet (grades CR220, CR250 and CR320)

product obtained from hot-rolled descaled steel sheet by cold reducing to the required sheet thickness followed by annealing to recrystallize the grain structure

NOTE 1 This annealed product is normally supplied skin-passed (see 3.3) but may be supplied annealed-last (i.e. without a skin pass), if specified by the purchaser on his order.

NOTE 2 CH550 is a product which has not been annealed after reduction to the specified thickness.