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**Cold-reduced carbon steel sheet for  
vitreous enamelling**

*Tôles en acier au carbone laminées à froid pour émaillage par  
vitrification*



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Published in Switzerland

## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 5001 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 12, *Continuous mill flat rolled products*.

This fourth edition cancels and replaces the third edition (ISO 5001:1999), which has been technically revised.

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# Cold-reduced carbon steel sheet for vitreous enamelling

## 1 Scope

**1.1** This International Standard applies to cold-reduced carbon steel sheet of commercial and drawing qualities for vitreous enamelling, where the surface of the sheet and chemical composition of the base metal are of prime importance.

**1.2** Sheet for vitreous enamelling is produced in thicknesses of 0,35 mm and thicker (commonly up to 3 mm) and in widths of 600 mm and wider in coils and cut lengths. Sheet for vitreous enamelling less than 600 mm wide may be slit from wide sheet and will be considered sheet.

**1.3** Commercial-quality sheet (VE01) is intended for general fabricating purposes where sheet is used in the flat form, or for bending or moderate forming.

**1.4** Drawing-quality sheet (VE02, VE03, VE04 and VE05) is intended for drawing and severe forming. It is furnished to all requirements of this International Standard or, by agreement when ordered, to fabricate an identified part, in which case the mechanical properties of Table 1 do not apply. If strain ageing is to be minimized, grade VE04 or VE05 should be specified.

Drawing qualities are identified as follows:

VE02 — drawing quality;

VE03 — deep-drawing quality;

VE04 — deep-drawing quality aluminium-killed (see 4.7.4);

VE05 — extra-deep-drawing quality (stabilized interstitial-free).

**1.5** The designations in 1.3 and 1.4 include the qualities of sheet steel for vitreous enamelling. The designation VE represents “vitreous enamelling” similar to CR “cold reduced”. The numbers 01, 02, 03, 04 and 05 are common to other standards, indicating the qualities of commercial, drawing, deep-drawing, deep-drawing aluminium-killed and extra-deep-drawing stabilized interstitial-free.

## 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 — Dimensional and shape tolerances*