

Stainless steels — Chemical composition

ICS 77.140.20

National foreword

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According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into an international Standard, to extend the life of the Technical Specification or to withdraw it. Comments should be sent to the Secretary of the responsible BSI Technical Committee at British Standards House, 389 Chiswick High Road, London W4 4AL.

The UK participation in its preparation was entrusted to Technical Committee ISE/30, Stainless steels.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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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.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

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An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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/TS 15510 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 4, *Heat treatable and alloy steels*.

Introduction

In its meeting held on 6th June 2000, ISO/TC 17/SC 4 decided to issue the revised version of ISO/TR 15510:1997 as a Technical Specification. It was nevertheless also stated that future discussions on ISO/TS 15510 should lead to a full ISO Standard.

Stainless steels — Chemical composition

1 Scope

This ISO Technical Specification lists the chemical compositions of stainless steels agreed by ISO/TC 17/SC 4 mainly on the basis of a composition of the specifications in existing ISO, ASTM, EN and JIS standards. They apply to all product forms including ingots and semi-finished material.

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 6929:1987, *Steel products — Definitions and classification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6929 as well as the following apply.

3.1

stainless steel

steel with at least 10,5 % mass fraction Cr and a maximum of 1,2 % mass fraction C

NOTE For the classification of stainless steels according to their structure, composition and application see Annex A.

4 Chemical composition

The chemical composition of stainless steels approved by ISO/TC 17/SC 4 is given in Table 1.

NOTE If, in special cases, e.g. an ISO committee charged with establishing or revising a standard for a specific product or application of stainless steels, sees the necessity of deviating from the specifications in Table 1 it should inform ISO/TC 17/SC 4 (Secretariat's address: DIN, Postfach 10 51 45, 40042 Düsseldorf, Germany) of the reasons for this and try, before such deviations are considered, to achieve consensus for a corresponding modification to Table 1.

5 Designation of comparable steels

In Table 2 are given the designations of stainless steels which are listed in other international, regional or national standards or designation systems and are comparable to the grades in Table 1.

NOTE To compare similar grades, it is necessary to check each element before making a substitution.