

भारतीय मानक ब्यूरो

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भारतीय मानक मसौदा

वेल्डिंग उपभोग्य — स्टेनलेस और ऊष्मा प्रतिरोधी इस्पात के मैनुअल धातु आर्क वेल्डिंग के लिए कवर किए गए इलेक्ट्रोड — वर्गीकरण (आईएस 5206 का दूसरा पुनरीक्षण)

Draft Indian Standard

Welding Consumables — Covered Electrodes for Manual Metal Arc Welding of Stainless and Heat- Resisting Steels — Classification (Second Revision of IS 5206)

ICS 25.160.20

Welding General and its Applications
Sectional Committee, MTD 11

Last date of comment:
06/03/2024

NATIONAL FOREWORD

(formal clause of the foreword will be added later)

This standard was originally published in 1969 and subsequently revised in 1983. The second revision of this standard has been undertaken to align it with ISO 3581 : 2023 under dual numbering system to harmonize it with the latest developments that have taken place at international level.

The text of ISO standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical with those used in Indian Standard. Attention is especially drawn to the following:

- Wherever the words 'International Standard' appear referring to this standard, it should be read as 'Indian Standard'.
- Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exists. The corresponding Indian Standards which are to be substituted in their place are listed below along with their degree of equivalence for the edition indicated:

| International Standard | Corresponding Indian Standard | Degree of Equivalence |
|---|--|-----------------------|
| ISO 544 : 2017 Welding consumables — Technical delivery conditions for filler materials and fluxes — Type | Doc : MTD/11/22952 Welding consumables — Technical delivery conditions for filler materials and fluxes — Type of | Identical |

| | | |
|--|--|-----------|
| of product, dimensions, tolerances and markings | product, dimensions, tolerances and markings | |
| ISO 6847 : 2020 Welding consumables — Deposition of a weld metal pad for chemical analysis | Doc : MTD/11/22954 Welding consumables — Deposition of a weld metal pad for chemical analysis | Identical |
| ISO 14344 : 2010 Welding consumables — Procurement of filler materials and fluxes | Doc : MTD/11/22964 Welding consumables — Procurement of filler materials and fluxes | Identical |
| ISO 15792 - 1 : 2020 Welding consumables — Test methods — Part 1: Preparation of all-weld metal test pieces and specimens in steel, nickel and nickel alloys | Doc : MTD/11/22966 Welding consumables — Test methods — Part 1: Preparation of all-weld metal test pieces and specimens in steel, nickel and nickel alloys | Identical |
| ISO 15792 - 3 : 2011 Welding consumables — Test methods — Part 3: Classification testing of positional capacity and root penetration of welding consumables in a fillet weld | Doc : MTD/11/22969 Welding consumables — Test methods — Part 3: Classification testing of positional capacity and root penetration of welding consumables in a fillet weld | Identical |
| ISO 80000 - 1 : 2022 Quantities and units — Part 1 : General | IS / ISO 80000 - 1 : 2022 Quantities and units Part 1 General (First Revision) | Identical |

This standard also makes a reference to the BIS Certification Marking of the product, details of which are given in National Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical-values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

The scope of the standard is as follows:

SCOPE

This document specifies requirements for classification of covered electrodes, based on the all-weld metal chemical composition, the type of electrode covering and other electrode properties, and the all-weld metal mechanical properties, in the as-welded or heat-treated conditions, for manual metal arc welding of stainless and heat-resisting steels.

This document is a combined standard providing for classification utilizing a system based upon classification according to nominal composition or utilizing a system based upon classification according to alloy type.

- a) Paragraphs and tables which carry the label “classification according to nominal composition-A” or “ISO 3581-A” are applicable only to products classified to that system.
- b) Paragraphs and tables which carry the label “classification according to alloy type-B” or “ISO 3581-B” are applicable only to products classified to that system.
- c) Paragraphs and tables which carry neither label are applicable to products classified according to either or both systems.

[Annex B](#) gives information on considerations on weld metal ferrite content.

The complete document/text of ISO 3581 : 2023 ‘Welding consumables — Covered electrodes for manual metal arc welding of stainless and heat-resisting steels — Classification’ may be made available, on request to:

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National Annex A
(National Foreword)

A-1 BIS CERTIFICATION MARKING

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the Bureau of Indian Standards Act, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the standard mark