भारतीय मानक ब्यूरो

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भारतीय मानक मसौदा

इस्पात और ढलवाँ लोहा — निकेल की मात्रा का निर्धारण — लौ परमाणु अवशोषण स्पेक्ट्रोमेट्रिक पद्धति

Draft Indian Standard

Steel and Cast Iron — Determination of Nickel Content — Flame Atomic Absorption Spectrometric Method

ICS 77.080.01

Methods of Chemical Analysis of Metals Sectional Committee, MTD 34	Last date of comments **11/09/2025**

NATIONAL FOREWORD

This draft standard is identical ISO 4940 : 2025 ‘Steel and cast iron — Determination of nickel content — Flame atomic absorption spectrometric method’ issued by the International Organization for Standardization (ISO), and subject to its finalization, is to be adopted by the Bureau of Indian Standards on the recommendation of the Methods of Chemical Analysis of Metals Sectional Committee and approval of the Metallurgical Engineering Division Council.

The committee decided to adopt ISO 4940 : 2025 standard under dual numbering system.

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:

a) Wherever the words `International Standard’ appear referring to this standard, it should be read as `Indian Standard’

b) 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 648 : 2008 Laboratory glassware — Single-volume pipettes	IS 1117 : 2018/ISO 648 : 2008 Laboratory glassware — Single-volume pipettes (*second revision*)	Identical
ISO 1042 : 1998, Laboratory glassware — One-mark volumetric flasks	IS 915 : 2012/ISO 1042 : 1998 Laboratory glassware — One-mark volumetric flasks (*third revision*)	Identical
ISO 14284:2022 Steel and iron — Sampling and preparation of samples for the determination of chemical composition	IS/ISO 14284 : 2022 Steel and Iron - Sampling and preparation of samples for the determination of chemical composition (*first revision*)	Identical

The Technical Committee responsible for the preparation of this standard will review the provisions of following International Standards referred in these adopted standards and will decide their acceptability for use in conjunction with this standard.

International Standard	*Title*
ISO 3696:1987	Water for analytical laboratory use — Specification and test methods

In reporting the result of a test or analysis made in accordance with this standard, if the final value; observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 'Rules for rounding off numerical values (second revision).'

The Scope of the standard is as follows:

SCOPE

This document specifies a flame atomic absorption spectrometric method (FAAS) for the determination of nickel content in steel and cast iron.

The method is applicable to nickel contents in the range of 0,002 % (mass fraction) to 0,5 % (mass fraction).

The complete document/text of ISO 4940 : 2025 'Steel and cast iron — Determination of nickel content — Flame atomic absorption spectrometric method' may be made available, on request to:

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