# भारतीय मानक ब्यूरो

### DRAFT FOR WIDE CIRCULATION

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भारतीय मानक मसौदा

ढलवाँ लोहा की सूक्ष्म संरचना — भाग 4 : गोलाकार ग्रेफाइट ढलवां लोहा में गाँठ का मूल्यांकन करने के लिए परीक्षण विधि

(आईएस 7754 का पहला पुनरीक्षण)

Draft Indian Standard

## MICROSTRUCTURE OF CAST IRONS — PART 4: TEST METHOD FOR EVALUATING NODULARITY IN SPHEROIDAL GRAPHITE CAST IRONS

(First Revision of IS 7754)

#### ICS 77.080.10

Metallography and Heat-Treatment	Last date for receipt of comments is
Sectional Committee, MTD 22	28/08/2023

#### NATIONAL FOREWORD

This draft standard is identical to ISO 945-4 : 2019 'Microstructure of cast irons — Part 4: Test method for evaluating nodularity in spheroidal graphite cast irons' 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 Metallography and Heat-Treatment Sectional Committee and approval of the Metallurgical Engineering Division Council.

This standard was originally published in 1975. The Committee has decided to revise this standard to bring it in line with International Practices by splitting in 4 parts as the requirements of IS 7754 : 1975 are covered in multiple ISO standards. This standard Part 4 is being formulated to align with the latest version ISO 945-4 : 2019 under dual numbering system.

This Indian Standard is published in four parts. The other parts in this series are:

- Part 1 Graphite classification by visual analysis
- Part 2 Graphite classification by image analysis
- Part 3 Matrix structures

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			ard	Corresponding Indian Standard	Degree of Equivalence
ISO	945-1	:	2019	IS 7754 (Part 1) : 2022/ ISO 945-1	Identical
Microstructure of cast irons —		ons —	: 2019 Microstructure of cast irons		
Part 1: Graphite classification		fication	Part 1 Graphite classification by		
by vis	ual analysis	3		visual analysis (First Revision)	

In reporting the results of a test or analysis made in accordance with this standard, 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 test method for evaluating nodularity in spheroidal graphite cast irons by comparative visual analysis and image analysis techniques.

This document provides figures for different levels of nodularity and graphite particle count of spheroidal graphite cast irons for visual analysis.

The complete document/text of ISO 945-4 : 2019 'Microstructure of cast irons — Part 4 : Test method for evaluating nodularity in spheroidal graphite cast irons' may be made available, on request to:

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