

BUREAU OF INDIAN STANDARDS

DRAFTS FOR COMMENTS ONLY

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Draft Indian Standard

**METHODS OF SAMPLING AND TEST FOR PAINTS,
VARNISHES AND RELATED PRODUCTS**

Part 3 Tests on Paint Film Formation

Sec 2 Determination of film thickness

(Fourth revision)

(ICS 87.040)

**Paints, Varnishes and Related Products
Sectional Committee, CHD 20**

Last Date for Comments: 2 November 2024

Paints, Varnishes and Related Products Sectional Committee, CHD 20

NATIONAL FOREWORD

(Formal clause will be added later)

IS 101 "Methods of Test for Ready Mixed Paints and Enamel", initially, was published as a unified standard in 1950 and it underwent revisions in 1961 and 1964 to update testing procedures. The third revision in 1986, due to the large size of IS 101, the committee decided to restructure it. Recognizing the need for clarity and organization, the standard was divided into multiple parts based on test types. These parts included tests on liquid paints (general and physical), chemical examination, film formation, optical assessments, and mechanical tests on paint film formation. Each part was further subdivided into sections, addressing specific tests within those categories. Further, it was decided that whenever a new test method introduced, it would be integrated into the relevant part of IS 101 where it is most appropriate, ensuring that the standard remained comprehensive.

This document describes methods for measuring the film thickness of paints and related materials. The thickness of paint, or film thickness, is crucial for protection against corrosion, durability, and maintaining a uniform appearance. Adequate thickness ensures resistance to

environmental damage, mechanical wear, and enhances the longevity and aesthetic quality of the painted surface.

In this fourth revision, the Committee, recognizing the significance of globally uniform practices, has decided to adopt ISO 2808 : 2019 as an Indian Standard under dual numbering.

This Indian Standard (Part 3) is published in several sections. The other sections of this series are:

Sec 1 Drying time

Sec 4 Finish

Sec 5 Determination of fineness of grind

Sec 6 Determination of the Surface Tension of Liquid Using the Pendant Drop Method

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

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

The technical committee has reviewed the provisions of the following International Standards/ documents referred in this adopted standard and has decided that they are acceptable for use in conjunction with this Standard:

<i>International Standards</i>	<i>Title</i>
ISO 3611	Geometrical product specifications (GPS) — Dimensional measuring equipment: Micrometers for external measurements — Design and metrological characteristics
ISO 4618	Paints and varnishes — Terms and definitions
ISO 8503-1	Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates — Part 1: Specifications and definitions for ISO surface profile

comparators for the assessment of abrasive blast-cleaned surfaces

In this adopted standard, reference appears to certain International Standards/documents where the standard atmospheric conditions to be observed are stipulated which are not applicable to tropical/subtropical countries. The applicable standard atmospheric conditions for Indian conditions are (27 ± 2) °C and (65 ± 5) percent relative humidity and shall be observed while using this standard.

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*)'.