**Doc: PCD 01 (24606) F**

***भारतीय मानक***

***Indian Standard***

**ISO 12213-3: 2006**

[**IS 15305 (Part 3): 2024**](https://www.services.bis.gov.in/php/BIS_2.0/StandardsFormulationV2/Upload3.php?ID=UUhaazE3ZldpOHl6TG9tS3dnbndDdz09)

***प्राकृतिक गैस - संपीड़न***

***गुणक का परिकलन***

***भाग 3 गुणधर्म का उपयोग***

***करते हुए परिकलन***

**(दूसरा पुनरीक्षण)**

**NATURAL GAS — CALCULATION**

**OF COMPRESSION FACTOR -**

**PART3 CALCULATION USING**

**PHYSICAL PROPERTIES**

**(Second Revision)**

ICS 75.060

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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**July 2024 Price Group X**

Methods of Sampling and Test for Petroleum and Related Products of Natural or Synthetic Origin (excluding bitumen) Sectional Committee, PCD 01

NATIONAL FOREWORD

This Indian Standard which is identical with ISO 12213-3:2006 ‘Natural gas — Calculation of compression factor Part 3: Calculation using physical properties’ issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Methods of Sampling and Test for Petroleum and Related Products of Natural or Synthetic Origin (excluding bitumen) Sectional Committee and approval of the Petroleum, Coal and Related Products Division Council.

This standard was originally published in 2003 and was an adoption of ISO 12213-3:1997 ‘Natural gas — Calculation of compression factor Part 3: Calculation using physical properties’. First revision was published in 2018 and was an adoption of ISO 12213-3:2006. Consequent to the revision of reference standards in ISO 12213-3:2006, the Committee decided to revise it to completely align with the latest version of reference standards and Corresponding Indian Standard.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions 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 while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

The other parts in this series of standard consist of the following individual parts of IS 15305.

Part 1: Introduction and Guidelines

Part 2: Calculation Using Molar-Composition Analysis

Part 3: Calculation using physical properties

In this adopted standard, reference appears to certain International Standard for which Indian Standard also exist. The corresponding Indian Standard, which is to be substituted in their respective places, is listed below along with their degree of equivalence for the editions indicated:

|  |  |  |
| --- | --- | --- |
| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| [ISO 6976: 1995](https://www.iso.org/obp/ui/en/#iso:std:iso:6976:ed-2:en), Natural gas — Calculation of calorific values, density, relative density and Wobbe index from composition | IS 14504 : 2021 / ISO 6976: 2016 — Natural Gas - Calculation of Calorific Values, Density, Relative Density and Wobbe Indices from Composition *(first revision)* | Identical |
| [ISO 12213-1](https://www.iso.org/obp/ui/en/#iso:std:iso:12213:-1:en), Natural gas — Calculation of compression factor — Part 1: Introduction and guidelines | IS 15305 (Part 1) : 2019 / ISO 12213-1: 2006 — Natural Gas - Calculation of Compression Factor Part 1 Introduction and Guidelines *(first revision)* | Identical |
| [ISO 80000-4](https://www.iso.org/obp/ui/en/#iso:std:iso:80000:-4:en), Quantities and units — Part 4: Mechanics | IS/ISO 80000-4 : 2019 — Quantities and units: Part 4 mechanics *(first revision)* | Identical |
| [ISO 80000-5](https://www.iso.org/obp/ui/en/#iso:std:iso:80000:-5:en), Quantities and units —Part 5: Thermodynamics | IS/ISO 80000-5 : 2019 — Quantities and units: Part 5 thermodynamics *(first revision)* | Identical |

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*)’.