
प्राकृतिक गैस — गुणता अभिनाम
(पहला पुनरीक्षण)

Natural Gas — Quality Designation
(*First Revision*)

ICS 03.060

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NATIONAL FOREWORD

This Indian Standard (First Revision) which is identical to ISO 13686 : 2013 'Natural gas — Quality designation' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Petroleum and their Related Products of Synthetic or Biological or Natural Origin Sectional Committee and approval of the Petroleum, Coal and Related Products Division Council.

This standard was originally published in 2002 and was an adoption of ISO 13686 : 1998 'Natural gas — Quality designation'. The first revision of this standard has been undertaken to align it with the latest version of ISO 13686 : 2013.

The text of the 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'; and
- 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 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 °C ± 2 °C and 65 percent ± 5 percent relative humidity and shall be observed while using this standard.

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

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 6974-2 Natural gas — Determination of composition and associated uncertainty by gas chromatography — Part 2: Uncertainty calculations	IS 15130 (Part 2) : 2021/ISO 6974-2 : 2012 Natural gas — Determination of composition and associated uncertainty by gas chromatography: Part 2 Uncertainty calculations (<i>first revision</i>)	Identical
ISO 6974-3 Natural gas — Determination of composition with defined uncertainty by gas chromatography — Part 3: Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and hydrocarbons up to C8 using two packed columns	IS 15130 (Part 3) : 2021/ISO 6974-3 : 2018 Natural gas — Determination of composition and associated uncertainty by gas chromatography: Part 3 Precision and bias (<i>first revision</i>)	Identical
ISO 6974-4 Natural gas — Determination of composition with defined uncertainty by gas chromatography — Part 4: Determination of nitrogen, carbon dioxide and C1 to C5 and C6+ hydrocarbons for a laboratory and	IS 15130 (Part 4) : 2002/ ISO 6974-4 : 2000 Natural Gas — Determination of composition with defined uncertainty by gas chromatography: Part 4 Determination of nitrogen, carbon dioxide and C ₁ to C ₅ and C ₆₊ hydrocarbons for a laboratory and	Identical

on-line measuring system using two columns	on-line measuring system using two columns	
ISO 6974-5 Natural gas — Determination of composition and associated uncertainty by gas chromatography — Part 5: Isothermal method for nitrogen, carbon dioxide, C ₁ to C ₅ hydrocarbons and C ₆₊ hydrocarbons	IS 15130 (Part 5) : 2021/ ISO 6974-5 : 2014 Natural Gas — Determination of composition with defined uncertainty by gas chromatography: Part 5 Determination of nitrogen, carbon dioxide and C ₁ to C ₅ and C ₆₊ hydrocarbons for a laboratory and on-line process application using three columns (<i>first revision</i>)	Identical
ISO 6976 : 1995 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 (<i>first revision</i>)	Identical
ISO 10101-1 Natural gas — Determination of water by the Karl Fischer method — Part 1: Introduction	IS 15641 (Part 1) : 2006/ISO 10101-1 : 1993 Natural gas — Determination of water by the Karl Fischer method: Part 1 Introduction	Identical
ISO 10101-2 Natural gas — Determination of water by the Karl Fischer method — Part 2: Titration procedure	IS 15641 (Part 2) : 2006/ISO 10101-2 : 1993 Natural gas — Determination of water by the karl fischer method: Part 2 Titration procedure	Identical
ISO 10101-3 Natural gas — Determination of water by the Karl Fischer method — Part 3: Coulometric procedure	IS 15641 (Part 3) : 2007/ISO 10101-3 : 1993 Natural Gas — Determination of water by Karl Fischer method: Part 3 Coulometric procedure	Identical
ISO 13443 Natural gas — Standard reference conditions	IS 15126 : 2002/ISO 13443 : 1996 Natural gas — Standard reference conditions	Identical

The Committee has reviewed the provisions of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 6326-1	Natural gas — Determination of sulfur compounds — Part 1: General introduction
ISO 6326-3	Natural gas — Determination of sulfur compounds — Part 3: Determination of hydrogen sulfide, mercaptan sulfur and carbonyl sulfide sulfur by potentiometry
ISO 6326-5	Natural gas — Determination of sulfur compounds — Part 5: Lingener combustion method
ISO 6327	Gas analysis — Determination of the water dew point of natural gas — Cooled surface condensation hygrometers
ISO 6570	Natural gas — Determination of potential hydrocarbon liquid content — Gravimetric methods
ISO 6974-1	Natural gas — Determination of composition and associated uncertainty by gas chromatography — Part 1: General guidelines and calculation of composition

<i>International Standard</i>	<i>Title</i>
ISO 6974-6	Natural gas — Determination of composition and associated uncertainty by gas chromatography — Part 6: Determination of helium, oxygen, nitrogen, carbon dioxide and C1 to C10 hydrocarbons using capillary columns
ISO 6975	Natural gas — Extended analysis — Gas-chromatographic method
ISO 6978-1	Natural gas — Determination of mercury — Part 1: Sampling of mercury by chemisorption on iodine
ISO 6978-2	Natural gas — Determination of mercury — Part 2: Sampling of mercury by amalgamation on gold/platinum alloy
ISO 11541	Natural gas — Determination of water content at high pressure
ISO 14532	Natural gas — Vocabulary
ISO 15970 : 2008	Natural gas — Measurement of properties — Volumetric properties: density, pressure, temperature and compression factor
ISO 15971 : 2008	Natural gas — Measurement of properties — Calorific value and Wobbe index
ISO 18453	Natural gas — Correlation between water content and water dew point
ISO 19739	Natural gas — Determination of sulfur compounds using gas chromatography
ISO 23874	Natural gas — Gas chromatographic requirements for hydrocarbon dewpoint calculation