



**GAS QUALITY**



# **TECHNICAL STANDARDS FOR GAS QUALITY**

Reference to CEN/CENELEC Technical Committees

May 2022



# INTRODUCTION

MARCOGAZ actively collaborates with standardisation bodies such as CEN, and our members have been deeply involved in the standardisation work for decades.

Essentially, standards reflect the state of the art in terms of safe and sustainable operational gas supply activities. The standardisation process fosters the continuous improvement of assets' integrity and interoperability while ensuring the continuity of supply to the customers in the best conditions. The introduction of new gases is a major step in the gas value chain and technical standards are crucial to support the gas industry's contribution to decarbonisation.

Based on its technical work and experience, MARCOGAZ developed a [summary of technical standards applicable to the gas industry's](#) activities to guide representatives and players in the sector. Given the large number of existing standards, MARCOGAZ selected the most relevant for the gas mid and downstream sector. This list is subject to periodic updates, based on the evolving nature of the standardisation processes and industry needs.

Version: 25 / 05 / 2022

# Technical standards for gas

CEN / CENELEC Technical Committee			Title	CEN / CENELEC reference
CEN/CLC/JTC 6	Hydrogen in energy systems	WG1	Hydrogen in energy systems - vocabulary	prEN ISO 24078
CEN/TC 234	Gas infrastructure		Implementation Guide for functional standards prepared by CEN/TC 234 Gas infrastructure - Part 1: General	TR 13737-1
			Gas infrastructure - Implementation Guide for Functional Standards prepared by CEN/TC 234 - Part 2: National Pages related to CEN/TC 234 standards	TR 13737-2
		WG6	Gas Infrastructure - CEN/TC 234 Pressure Definitions - Guideline Document	TR 16395
		WG11	Gas infrastructure - Quality of gas - Group H	EN 16726
CEN/TC 238	Test gases, test pressures, appliance categories and gas appliance types	WG1	Test gases - Test pressures - Appliance categories	EN 437
		WG1	Natural gas - Standard reference conditions (ISO 13443:1996 including Corrigendum 1:1997)	EN ISO 13443
		WG1	Natural gas - Quality designation (ISO 13686:2013)	EN ISO 13686
		WG1	Natural gas - Vocabulary (ISO 14532:2014)	EN ISO 14532
		WG1	Natural gas - Organic components used as odorants - Requirements and test methods	prEN ISO 13734 rev
		WG1	Natural gas - Determination of sulfur compounds using gas chromatography (ISO 19739:2004/Cor 1:2009)	EN ISO 19739
		WG1	Natural gas - Calculation of compression factor - Part 1: Introduction and guidelines (ISO 12213-1:2006)	EN ISO 12213-1
		WG1	Natural gas - Calculation of compression factor - Part 2: Calculation using molar-composition analysis (ISO 12213-2:2006)	EN ISO 12213-2
		WG1	Natural gas - Calculation of compression factor - Part 3: Calculation using physical properties (ISO 12213-3:2006)	EN ISO 12213-3
		WG1	Natural gas - Extended analysis - Gas-chromatographic method (ISO 6975:1997)	EN ISO 6975:2005
		WG1	Natural gas - Calculation of calorific values, density, relative density and Wobbe indices from composition (ISO 6976:2016)	EN ISO 6976:2016
		WG1	Natural gas - Determination of water content at high pressure (ISO 11541:1997)	EN ISO 11541:2000
		WG1	Gas analysis - Conversion of gas mixture composition data (ISO 14912:2003)	EN ISO 14912:2006
		WG1	Natural gas - Energy determination (ISO 15112:2018)	EN ISO 15112:2018
		WG1	Gas analysis - Investigation and treatment of analytical bias (ISO 15796:2005)	EN ISO 15796:2008
		WG1	Natural gas - Measurement of properties - Volumetric properties: density, pressure, temperature and compression factor (ISO 15970:2008)	EN ISO 15970:2014
		WG1	Gas analysis - Handling of calibration gases and gas mixtures - Guidelines (ISO 16664:2017)	EN ISO 11664:2017
		WG1	Natural gas - Calculation of thermodynamic properties - Part 1: Gas phase properties for transmission and distribution applications (ISO 20765-1:2005)	EN ISO 20765-1:2018
		WG1	Natural gas - Calculation of thermodynamic properties - Part 2: Single-phase properties (gas, liquid, and dense fluid) for extended ranges of application (ISO 20765-2:2015)	EN ISO 20765-2:2018
		WG1	Natural gas - Calculation of thermodynamic properties - Part 5: Calculation of viscosity, Joule-Thomson coefficient, and isentropic exponent (ISO/DIS 20765-5:2020)	prEN ISO 20765-5
CEN/TC 282	Installation and equipment for LNG		Installations and equipment for liquefied natural gas - Suitability testing of LNG sampling systems	EN 12838
CEN/TC 408	Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid		Natural gas and biomethane for use in transport and biomethane for injection in the natural gas network - Part 1: Specifications for biomethane for injection in the natural gas network	EN 16723-1
			Natural gas and biomethane for use in transport and biomethane for injection in the natural gas network - Part 2: Automotive fuels specification	EN 16723-2
			Specification of liquefied natural gas as a fuel for marine applications (ISO 23306:2020)	EN ISO 23306
			Proposed limit values for contaminants in biomethane based on health assessment criteria	TR 17238