Irish Standard
I.S. EN 16723-2:2017

Natural gas and biomethane for use in transport and biomethane for injection in the natural gas network - Part 2: Automotive fuels specification

I.S. EN 16723-2:2017

Incorporating amendments/corrigenda issued since publication:

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 16723-2:2017 is the adopted Irish version of the European Document EN 16723-2:2017, Natural gas and biomethane for use in transport and biomethane for injection in the natural gas network - Part 2: Automotive fuels specification

EN 16723-2:2017 requires that each country implementing this standard establishes a national annex detailing which grade is adopted when determining the water dew point of natural gas and biomethane as automotive fuels.

To address the requirements introduced by EN 16723-2:2017, a National Annex (NA:2020 to I.S. EN 16723-2:2017) has been published.

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16723-2

June 2017

ICS 27.190; 75.160.30

English Version

Natural gas and biomethane for use in transport and biomethane for injection in the natural gas network - Part 2: Automotive fuels specification

Gaz naturel et biométhane pour utilisation dans le transport et biométhane pour injection dans les réseaux de gaz naturel - Partie 2 : Spécifications du carburant pour véhicules automobiles

Erdgas und Biomethan zur Verwendung im Transportwesen und Biomethan zur Einspeisung ins Erdgasnetz - Teil 2: Festlegungen für Kraftstoffe für Kraftfahrzeuge

This European Standard was approved by CEN on 10 April 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 16723-2:2017) has been prepared by Technical Committee CEN/TC 408 “Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2017, and conflicting national standards shall be withdrawn at the latest by December 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

EN 16723 consists of the following parts, under the general title “*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*

— *Part 2: Automotive fuel specification*

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard was prepared by CEN/TC 408 in response to the European Commission standardization mandate M/475.

The mandate asks for the development of a set of quality specifications for biomethane to be used as a fuel for automotive vehicle engines and to be injected in natural gas pipelines (network).

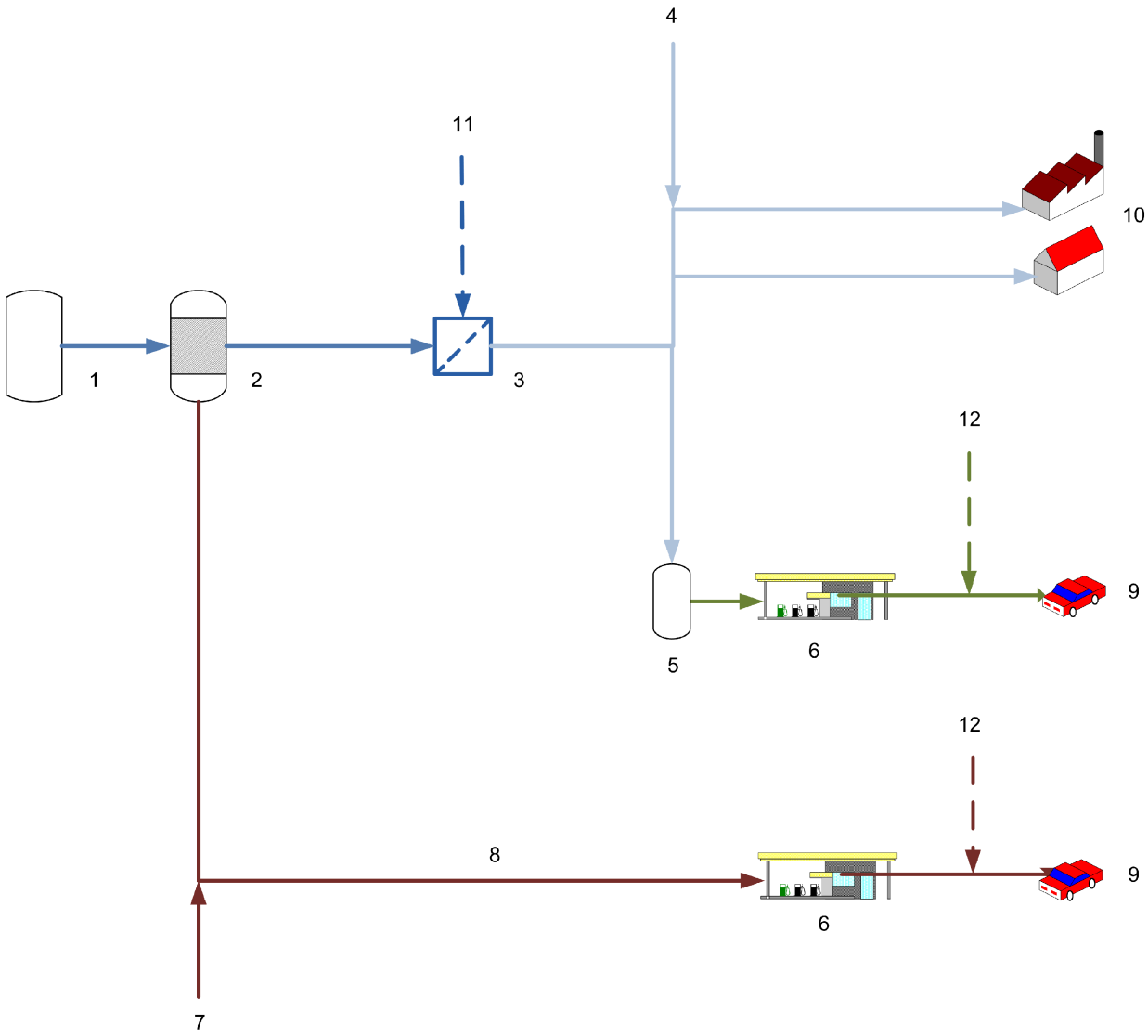
However, the scope of the standard was widened according to BT decision C109/2012 that redefined the scope of CEN/TC 408: 'Standardization of specifications for natural gas and biomethane as automotive vehicle fuel and of biomethane for injection in the natural gas grid, including any necessary related methods of analysis and testing. Production process, source and the origin of the source are excluded'.

NOTE The CEN Technical Board (CEN/BT) is responsible for coordinating the work between technical bodies in order to achieve a coherent set of standards and to avoid overlaps.

One of the aims of European policy in the field of energy is to increase the security of energy supply in the EU, as well as to contribute to reducing the emission of greenhouse gases accepted by the EU at Kyoto. In this context, special focus is given to the development and use of energy from renewable sources of biological and non-biological origin.

Figure 1 provides a visual representation of some applications of biomethane.

Mandate M/475 indicates that the requirements for natural gas quality for injection in the natural gas network are developed by CEN/TC 234 in answer to Mandate M/400 on natural gas quality. CEN/TC 408 should consider the work of the pending mandate M/400 on gas quality, and should refer to the parameters as defined and specified in EN 16726. This standard should exclude the definition of any parameters or substances that are addressed in EN 16726. However, it may specify more strict limits for parameters or substances unique to biomethane if deemed technically necessary. If needed, additional parameters or substances should be defined.



Key

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Figure 1 — Representation of some flows and uses of biomethane and natural gas

1 Scope

This European Standard specifies the requirements and test methods for natural gas (group L and H, as in EN 437), biomethane and blends of both at the point of use as automotive fuels.

This European Standard applies to the previously mentioned fuels irrespective of the storage state (compressed or liquefied).

To check compliance with some requirements set by the standard, LNG or liquefied biomethane should be re-gasified prior to testing.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 437, *Test gases - Test pressures - Appliance categories*

EN 16726:2015, *Gas infrastructure - Quality of gas - Group H*

EN 16942, *Fuels - Identification of vehicle compatibility - Graphical expression for consumer information*

EN ISO 10715, *Natural gas - Sampling guidelines (ISO 10715)*

EN ISO 13443, *Natural gas - Standard reference conditions (ISO 13443)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16726 as well as the following apply.

3.1
biogas
gas, comprising principally methane and carbon dioxide, obtained from the anaerobic digestion of biomass

3.2
biomass
biological material from living, or recently living organisms, typically this may be plants or plant-derived materials

3.3
biomethane
gas comprising principally methane, obtained from either upgrading of biogas or methanation of bio-syngas

3.4
bio-syngas
gas, comprising principally carbon monoxide and hydrogen, obtained from gasification of biomass

3.5
compressed natural gas
CNG
natural gas used as a fuel for automotive vehicles, typically compressed up to 20 000 kPa in the gaseous state