

SLOVENSKI STANDARD
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Goriva za motorna vozila - Gorivo etanol (E85) za motorna vozila - Zahteve in preskusne metode

Automotive fuels - Ethanol (E85) automotive fuel - Requirements and test methods

Kraftstoffe für Kraftfahrzeuge - Ethanol (E85) Autokraftstoff - Anforderungen und Prüfverfahren

Carburants pour automobiles - Carburant automobile Ethanol (E85) - Exigences et méthodes d'essai

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ICS:

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English Version

**Automotive fuels - Ethanol (E85) automotive fuel - Requirements
and test methods**

Carburants pour automobiles - Carburant pour automobiles
Ethanol (E85) - Exigences et méthodes d'essai

Kraftstoffe für Kraftfahrzeuge - Ethanol (E85) Autokraftstoff
- Anforderungen und Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 19.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (prEN 15293:2009) has been prepared by Technical Committee CEN/TC 19 “Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede CWA 15293:2005.

This document will supersede CEN/CWA 15293:2005, which has originally been prepared under a Mandate given to CEN by the European Commission. This document supports EU Directive(s) [1], [2] and [3].

Significant technical changes between this European Standard and the CEN Workshop agreement are:

- the fuel requirements do allow the car manufacturers to optimize the ignition setting over the whole range of 0 % to 85 % of ethanol, whereas former limits of for instance vapour pressure and MON/RON were calculated on the basis of the percentage. This should give the user the benefit of the improved octane of the alcohol;
- the requirements towards contaminants originating mainly from ethanol are aligned with the meanwhile published EN 15376. As alignment of units for elemental contaminants is pursued, a mean density value of 0,78 g/cm³ has been used;
- the specification has been set to allow for the use of denatured ethanol as a blending component;
- newly developed ethanol test methods are used, which show a better applicability to Ethanol (E85) automotive fuel and all test methods have been assessed for their effective applicability;
- the climate requirements do allow different percentages of ethanol to be blended, based on field experience, of which some limits are still under discussion. These will be included at a later stage;

Furthermore, some of the determination methods referenced are still being investigated in terms of correct application and precision.

1 Scope

This European Standard specifies requirements and test methods for marketed and delivered Ethanol (E85) automotive fuel. It is applicable to Ethanol (E85) for use in spark ignition engine vehicles designed to run on Ethanol (E85).

Ethanol (E85) is a mixture of nominally 85 % ethanol and petrol, but also including the possibility of having different 'seasonal grades' containing more than 50 % ethanol.

NOTE For the purposes of this document, the terms “% (m/m)” and “% (V/V)” are used to represent respectively the mass fraction and the volume fraction.

2 Normative references

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

EN 228, *Automotive fuels – Unleaded petroleum – Requirements and test methods*

EN 1601:1997, *Liquid petroleum products — Unleaded petrol — Determination of organic oxygenate compounds and total organically bound oxygen content by gas chromatography (O-FID)*

EN 13016-1:2007, *Liquid petroleum products — Vapour pressure — Part 1: Determination of air saturated vapour pressure (ASVP) and calculated dry vapour pressure equivalent (DVPE)*

EN 15376, *Automotive fuels — Ethanol as a blending component for petrol — Requirements and test methods*

EN 15485:2007, *Ethanol as a blending component for petrol — Determination of sulfur content — Wavelength dispersive X-ray fluorescence spectrometric method*

EN 15486:2007, *Ethanol as a blending component for petrol — Determination of sulfur content — Ultraviolet fluorescence method*

EN 15487:2007, *Ethanol as a blending component for petrol — Determination of phosphorus content — Ammonium molybdate spectrometric method*

EN 15488:2007, *Ethanol as a blending component for petrol — Determination of copper content — Graphite furnace atomic absorption spectrometric method*

EN 15489:2007, *Ethanol as a blending component for petrol — Determination of water content — Karl-Fischer coulometric titration method*

EN 15490:2007, *Ethanol as a blending component for petrol — Determination of pH_e*

EN 15491:2007, *Ethanol as a blending component for petrol — Determination of total acidity — Colour indicator titration method*

EN 15492:2008 *Ethanol as a blending component for petrol — Determination of inorganic chloride and sulfate content — Ion chromatographic method*

prEN 15692:2008, *Ethanol as a blending component for gasoline — Determination of water content — Karl Fischer potentiometric titration method*

prEN 15769:2008, *Ethanol as a blending component of petrol — Determination of appearance — Visual method*