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TNI	**Automobilové palivá Automobilové etanolové palivo E85 Podstata požadovaných parametrov a ich medzné hodnoty a stanovenie**	**TNI CEN/TR 15993** 65 6516

Automotive fuels - Ethanol (E85) automotive fuel - Background to the parameters required and their respective limits and determination

Táto technická normalizačná informácia obsahuje anglickú verziu CEN/TR 15993:2018.
This Technical standard information includes the English version of CEN/TR 15993:2018.

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English Version

Automotive fuels - Ethanol (E85) automotive fuel - Background to the parameters required and their respective limits and determination

Carburants pour automobiles - Ethanol (E85) carburants pour automobiles - Historique sur la définition des paramètres requis, de leurs limites et de leur détermination respectives

Kraftstoffe für Kraftfahrzeuge - Ethanol (E85) Fahrzeugkraftstoff - Hintergrund über die geforderten Parameter und ihre entsprechenden Grenzen und Bestimmung

This Technical Report was approved by CEN on 8 February 2018. It has been drawn up by the Technical Committee CEN/TC 19.

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European foreword

This document (CEN/TR 15993:2018) 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.

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This document supersedes CEN/TR 15993:2013.

The original Technical Report presented all decisions that led to CEN/TS 15293:2011 [1], when it was developed from its predecessor [2]. This document now includes all decisions that have been made within the Ethanol Fuel Task Force since 2011, following comments and further investigations leading to the draft ethanol (E85) automotive fuel specification as a proposed European Standard prEN 15293:2017.

1 Scope

This Technical Report explains the requirements and test methods for marketed and delivered ethanol (E85) automotive fuel according to EN 15293. It provides background information on the final text of the draft European standard and gives guidance and explanations to the producers, blenders, marketers and users of 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 15 % petrol, but it also includes the possibility of having different 'seasonal grades' containing 50 % or more ethanol.

NOTE 1 This document is directly related to prEN 15293:2017 and will be updated if further revisions to the standard take place.

NOTE 2 For the purposes of this document, the terms "% (*m/m*)" and "% (*V/V*)" are used to represent the mass fraction, μ, and the volume fraction, φ, respectively.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 petrol — 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, *Liquid petroleum products — Vapour pressure — Part 1: Determination of air saturated vapour pressure (ASVP) and calculated dry vapour pressure equivalent (DVPE)*

EN 13016-3, *Liquid petroleum products — Vapour pressure — Part 3: Determination of vapour pressure and calculated dry vapour pressure equivalent (DVPE) (Triple Expansion Method)*

CEN/TS 15293:2011, *Automotive fuels — Ethanol (E85) automotive fuel — Requirements and test methods*

prEN 15293:2017, *Automotive fuels — Ethanol (E85) automotive fuel — Requirements and test methods*

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

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

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

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

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

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

EN 15490, *Ethanol as a blending component for petrol — Determination of pHe*

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

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

EN 15691:2009, *Ethanol as a blending component for petrol — Determination of dry residue (involatile material) — Gravimetric method*

EN 15692:2009, *Ethanol as a blending component for petrol — Determination of water content — Karl Fischer potentiometric titration method*

EN 15721:2013, *Ethanol as a blending component for petrol — Determination of higher alcohols, methanol and other impurities — Gas chromatographic method*

EN 15769, *Ethanol as a blending component of petrol — Determination of appearance — Visual method*

EN 16270:2015, *Automotive fuels — Determination of high-boiling components including fatty acid methyl esters in petrol and ethanol (E85) automotive fuel — Gas chromatographic method*

EN 16761-1, *Automotive fuels — Determination of methanol in automotive ethanol (E85) fuel by gas chromatography — Part 1: Method using single column technique*

EN 16761-2, *Automotive fuels — Determination of methanol in automotive ethanol (E85) fuel by gas chromatography —Part 2: Method using heart cut technique*

EN ISO 2160, *Petroleum products — Corrosiveness to copper — Copper strip test (ISO 2160)*

EN ISO 3405:2000, *Petroleum products — Determination of distillation characteristics at atmospheric pressure (ISO 3405:2000)*

EN ISO 5163, *Petroleum products — Determination of knock characteristics of motor and aviation fuels — Motor method (ISO 5163)*

EN ISO 5164, *Petroleum products — Determination of knock characteristics of motor fuels — Research method (ISO 5164)*

EN ISO 7536, *Petroleum products — Determination of oxidation stability of gasoline — Induction period method (ISO 7536)*

EN ISO 12185, *Crude petroleum and petroleum products — Determination of density — Oscillating U-tube method (ISO 12185)*

EN ISO 22854, *Liquid petroleum products — Determination of hydrocarbon types and oxygenates in automotive-motor gasoline and in ethanol (E85) automotive fuel — Multidimensional gas chromatography method (ISO 22854)*