

SLOVENSKI STANDARD

SIST EN ISO 12156-1:2019

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Nadomešča:

SIST EN ISO 12156-1:2016

Dizelsko gorivo - Ocenjevanje mazalne sposobnosti z visokofrekvenčnim merilnikom (HFRR) - 1. del: Preskusna metoda (ISO 12156-1:2018)

Diesel fuel - Assessment of lubricity using the high-frequency reciprocating rig (HFRR) - Part 1: Test method (ISO 12156-1:2018)

Dieselmotoren - Bestimmung der Schmierfähigkeit unter Verwendung eines Schwingungsverschleiß-Prüfgerätes (HFRR) - Teil 1: Prüfverfahren (ISO 12156-1:2018)

Carburant diesel - Évaluation du pouvoir lubrifiant au banc alternatif à haute fréquence (HFRR) - Partie 1: Méthode d'essai (ISO 12156-1:2018)

Ta slovenski standard je istoveten z: EN ISO 12156-1:2018

ICS:

75.160.20 Tekoča goriva Liquid fuels

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EUROPEAN STANDARD
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English Version

Diesel fuel - Assessment of lubricity using the high-frequency reciprocating rig (HFRR) - Part 1: Test method (ISO 12156-1:2018)

Carburant diesel - Évaluation du pouvoir lubrifiant au banc alternatif à haute fréquence (HFRR) - Partie 1: Méthode d'essai (ISO 12156-1:2018)

Dieselmotorenstoff - Bestimmung der Schmierfähigkeit unter Verwendung eines Schwingungsverschleiß-Prüfgerätes (HFRR) - Teil 1: Prüfverfahren (ISO 12156-1:2018)

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European foreword

This document (EN ISO 12156-1:2018) has been prepared by Technical Committee ISO/TC 22 "Road vehicles" in collaboration with 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 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of an identical text or by endorsement, at the latest by May 2019, and conflicting national standards shall be withdrawn at the latest by May 2019.

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.

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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.

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The text of ISO 12156-1:2018 has been approved by CEN as EN ISO 12156-1:2018 without any modification.

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INTERNATIONAL
STANDARD

ISO
12156-1

Fourth edition
2018-10

**Diesel fuel — Assessment of
lubricity using the high-frequency
reciprocating rig (HFRR) —**

**Part 1:
Test method**

iTeh STANDARD PREVIEW
*Carburant diesel — Évaluation du pouvoir lubrifiant au banc
alternatif à haute fréquence (HFRR) —
Partie 1: Méthode d'essai*
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html (standards.iteh.ai)

This document was prepared by ISO/TC 22, *Road vehicles*, Subcommittee SC 34, *Propulsion, powertrain, and powertrain fluids*, in collaboration with Technical Committee ISO/TC 28, *Petroleum and related products, fuels and lubricants from natural or synthetic sources*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

This fourth edition of ISO 12156-1 cancels and replaces the third edition (ISO 12156-1:2016), which has been technically revised after a user feedback survey. This revision includes the following changes:

- lessening of the requirements on reagents and correction of the ambient test conditions ([Figure 2](#)) to reflect the actual conditions met by participants in the inter-laboratory test program;
- the Annex containing details of the major changes (adding the camera and deletion of the humidity correction factor) between the second and third edition of this document has been removed; and
- [Annex A](#) has been populated with updated photographs of typical wear scars.

A list of all parts in the ISO 12156 series can be found on the ISO website.

Introduction

All diesel fuel injection equipment has some reliance on diesel fuel as a lubricant. Wear due to excessive friction resulting in shortened life of engine components, such as diesel fuel injection pumps and injectors, has sometimes been ascribed to lack of lubricity in the fuel.

The relationship of test results to diesel injection equipment component distress due to wear has been demonstrated for some fuel/hardware combinations where boundary lubrication is a factor in the operation of the component¹⁾.

Test results from fuels tested to this procedure have been found to correlate with many fuel/hardware combinations and provide an adequate prediction of the lubricating quality of the fuel. The correlation of biodiesel blends has been validated through 15 years of field experience and anecdotal data.

This document includes content and data, with permission of ASTM International, from ASTM Research Report RR:D02-1718^[3] that is cited in ASTM D6079^[1] and ASTM D7688^[2].

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1) NIKANJAM, Manuch, Teri CROSBY, Paul HENDERSON, Chris GRAY, Klaus MEYER, and Nick DAVENPORT, "ISO Diesel Fuel Round Robin Program," SAE Technical Paper No. 952372, 1995, ISSN 0148- 7191, doi: 10.4271/952372