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MAANTEESÖIDUKITELE

Hydrogen fuel - Product specification and quality
assurance - Proton exchange membrane (PEM) fuel cell
applications for road vehicles

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | |
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EUROPEAN STANDARD

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Hydrogen fuel - Product specification and quality
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applications for road vehicles

Carburant hydrogène - Spécification de produit et
assurance qualité - Applications des piles à
combustible à membrane à échange de protons (MEP)
pour les véhicules routier

Wasserstoff als Kraftstoff - Produktfestlegung und
Qualitätssicherung - Protonenaustauschmembran
(PEM) - Brennstoffzellenanwendungen für
Straßenfahrzeuge

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European foreword

This document (EN 17124:2018) has been prepared by Technical Committee CEN/TC 268 "Cryogenic vessels and specific hydrogen technologies applications", the secretariat of which is held by AFNOR.

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1 Scope

This document specifies the quality characteristics of hydrogen fuel and the corresponding quality assurance in order to ensure uniformity of the hydrogen product as dispensed for utilization in proton exchange membrane (PEM) fuel cell road vehicle systems.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

constituent

component (or compound) found within a hydrogen fuel mixture

3.2

contaminant

impurity that adversely affects the components within the fuel cell system or the hydrogen storage system

Note 1 to entry: An adverse effect can be reversible or irreversible.

3.3

detection limit

lowest quantity of a substance that can be distinguished from the absence of that substance with a stated confidence limit

3.4

determination limit

lowest quantity which can be measured at a given acceptable level of uncertainty

3.5

fuel cell system

power system used for the generation of electricity on a fuel cell vehicle, typically containing the following subsystems: fuel cell stack, air processing, fuel processing, thermal management and water management

3.6

hydrogen fuel index

fraction or percentage of a fuel mixture that is hydrogen

3.7

irreversible effect

effect which results in a permanent degradation of the fuel cell power system performance that cannot be restored by practical changes of operational conditions and/or gas composition