

<b>STN</b>	<b>Cestné vozidlá na palivové články Bezpečnostné špecifikácie Ochrana pred vodíkovým nebezpečenstvom pre vozidlá poháňané stlačeným vodíkom</b>	<b>STN ISO 23273  30 0681</b>
------------	--	---

Fuel cell road vehicles

Safety specifications

Protection against hydrogen hazards for vehicles fuelled with compressed hydrogen

Véhicules routiers alimentés par pile à combustible

Spécifications de sécurité

Protection contre les dangers de l'hydrogène pour les véhicules utilisant de l'hydrogène comprimé

Táto slovenská technická norma obsahuje anglickú verziu medzinárodnej normy ISO 23273: 2013 a má postavenie oficiálnej verzie.

This Slovak standard includes the English version of the International standard ISO 23273: 2013 and has the status of the official version.

**140077**

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2025

Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

## **Anotácia**

Táto medzinárodná norma špecifikuje základné požiadavky na vozidlá na palivové články (FCV) s ohľadom na ochranu osôb a prostredia vo vnútri a mimo vozidla pred vodíkovým nebezpečenstvom.

Vzťahuje sa len na také FCV, kde sa stlačený vodík používa ako palivo pre systém palivových článkov.

Táto medzinárodná norma neplatí pre výrobu, údržbu a opravy.

Požiadavky tejto medzinárodnej normy sa týkajú normálnej (bezporuchovej) prevádzky vozidla a stavu s jednou poruchou.

## **Národný predhovor**

### **Normatívne referenčné dokumenty**

Na nasledujúce dokumenty sa odkazuje v texte takým spôsobom, že časť ich obsahu alebo celý obsah predstavuje požiadavky tohto dokumentu. Pri datovaných odkazoch sa používa len citované vydanie. Pri nedatovaných odkazoch sa používa najnovšie vydanie citovaného dokumentu (vrátane akýchkoľvek zmien).

POZNÁMKA 1. – Ak bola medzinárodná publikácia zmenená spoločnými modifikáciami, čo je indikované označením (mod), použije sa príslušná EN/HD.

POZNÁMKA 2. – Aktuálne informácie o platných a zrušených STN a TNI možno získať na webovom sídle [www.unms.sk](http://www.unms.sk).

ISO 17268 prijatá ako STN EN ISO 17268 Pripájacie zariadenia na tankovanie plynného vodíka do pozemných vozidiel (ISO 17268) (69 7230)

ISO 6469-2 dosiaľ neprijatá

### **Vypracovanie**

**Spracovateľ:** Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, Bratislava

**Technická komisia:** TK 33 Cestné vozidlá

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Environmental and operational conditions</b> .....	<b>3</b>
<b>5 Design and performance requirements of the fuel system</b> .....	<b>3</b>
5.1 General.....	3
5.2 Components.....	3
5.3 Location and installation of components.....	4
5.4 Discharges.....	4
<b>6 Test methods for determining flammability around the vehicle from fuel discharges</b> .....	<b>4</b>
<b>7 Complementary or alternative approach to verify hydrogen-related safety requirements</b> ..	<b>4</b>
7.1 General.....	4
7.2 Hydrogen-related components and systems .....	5
7.3 Integration of the hydrogen-related components and systems into the FCV .....	5
7.4 Verification of the safety concept.....	5
<b>8 Fuelling requirements</b> .....	<b>5</b>
8.1 General.....	5
8.2 Fuelling inlet .....	5
<b>Bibliography</b> .....	<b>6</b>

**ISO 23273:2013(E)****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. [www.iso.org/directives](http://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. [www.iso.org/patents](http://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.

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 21, *Electrically propelled road vehicles*.

This first edition of ISO 23273 cancels and replaces ISO 23273-2:2006, of which it constitutes a minor revision.

# Fuel cell road vehicles — Safety specifications — Protection against hydrogen hazards for vehicles fuelled with compressed hydrogen

## 1 Scope

This International Standard specifies the essential requirements for fuel cell vehicles (FCV) with respect to the protection of persons and the environment inside and outside the vehicle against hydrogen-related hazards.

It applies only to such FCV where compressed hydrogen is used as fuel for the fuel cell system.

This International Standard does not apply to manufacturing, maintenance, and repair.

The requirements of this International Standard address both normal operating (fault-free) and single-fault conditions of the vehicles.

## 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.

ISO 17268, *Gaseous hydrogen land vehicle refuelling connection devices*

ISO 6469-2, *Electrically propelled road vehicles — Safety specifications — Part 2: Vehicle operational safety means and protection against failures*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**