## INTERNATIONAL STANDARD

ISO 11439

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**AMENDMENT 1** 2021-10

# Gas cylinders — High pressure cylinders for the on-board storage of natural gas as a fuel for automotive vehicles

## AMENDMENT 1

Bouteilles à gaz — Bouteilles haute pression pour le stockage de gaz naturel utilisé comme carburant à bord des véhicules automobiles

AMENDEMENT 1 ( S. Iteh. 21)

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This document was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 3, *Cylinder design*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 23, *Transportable gas cylinders*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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## Gas cylinders — High pressure cylinders for the on-board storage of natural gas as a fuel for automotive vehicles

## **AMENDMENT 1**

#### Clause 2

Remove the dates from the following normative references in Clause 2 and where they are cited in the document text:

ASTM D1308, Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes

ASTM D2794, Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)

ASTM D3170, Standard Test Method for Chipping Resistance of Coatings

ASTM G154, Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials

NACE/TM 0177, Laboratory Testing of Metals for Resistance to Sulfide Stress Cracking and Stress Corrosion Cracking in H2S Environments

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7.5.2.2 c

Add a sentence to the end of the paragraph in item c) as follows:

The actual tensile strength of the steel according to A.1 shall not exceed the value obtained by more than 5 % on the samples tested for sulfide stress cracking resistance.

7.6.2.1

Delete list item 4) and renumber list item 5) as 4).

8.2.3.1

Replace the second paragraph with the following:

The glass transition temperature of the resin material shall be determined in accordance with ASTM D3418, and shall not be less than 102 °C.

8.5.2.2 c

Add a sentence to the end of the paragraph in item c) as follows:

The actual tensile strength of the steel according to A.1 shall not exceed the value obtained by more than 5 % on the samples tested for sulfide stress cracking resistance.

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8.5.2.11

Replace the paragraph with the following:

In designs where glass or aramid fibre has a load sharing application, one cylinder shall be tested in accordance with A.18.

8.6.2.1

Delete list item b) 4).

9.2.3.1

Replace the final sentence with the following:

The glass transition temperature of the resin material shall be determined in accordance with ASTM D3418, and shall not be less than  $102\,^{\circ}\text{C}$ .

9.4.5

In the first paragraph, correct the name of the test from "acid environment" to "environmental", as follows:

The exterior of cylinders shall meet the requirements of the environmental test described in A.14.

9.5.2.2 c)

Add a sentence to the end of the paragraph in item c) as follows:

The actual tensile strength of the steel according to A.1 shall not exceed the value obtained by more than 5 % on the samples tested for sulfide stress cracking resistance.

9.5.2.11

Replace the paragraph with the following:

In designs where glass or aramid fibre has a load sharing application, one cylinder shall be tested in accordance with A.18.

9.6.2

Delete list item d).

10.2.2

Replace the second paragraph with the following:

The glass transition temperature of the resin material shall be determined in accordance with ASTM D3418, and shall not be less than 102 °C.