

HYDROGEN



- International level -

ISO/TC 197 – Hydrogen technologies

Standards	26	Projects	23	National delegates	4
Scope	ISO/TC 197 is responsible for the standardization in the field of systems and devices for the production, storage, transport, measurement and use of hydrogen.				

Most relevant sub-committees and working groups

SC 1	Hydrogen at scale and horizontal energy systems	WG 19	Gaseous hydrogen fueling station dispensers
WG 1	Liquid hydrogen - Land vehicles fuel tanks	WG 27	Hydrogen fuel quality
WG 5	Gaseous hydrogen land vehicle refuelling connection devices	WG 28	Hydrogen quality control
WG 15	Cylinders and tubes for stationary storage	WG 29	Basic considerations for the safety of hydrogen systems

Main “ISO/ TC 197” Standards

Production and safety	• ISO 22734-1:2025: Hydrogen generators using water electrolysis — Part 1: Safety • ISO 22734:2019: Hydrogen generators using water electrolysis — Industrial, commercial, and residential applications
Land vehicle containers	• ISO 19881:2025: Gaseous hydrogen — Land vehicle fuel container • ISO 17268:2020: Gaseous hydrogen land vehicle refuelling connection devices
Fuelling stations	• ISO 19880: Gaseous hydrogen — Fuelling stations — Part 1:2020: General requirements — Part 2:2025: Dispensers and dispensing systems — Part 3:2018: Valves — Part 5:2025: Dispenser hoses and hose assemblies
Hydrogen fuel quality	• ISO 14687:2025: Hydrogen fuel quality — Product specification • ISO 19880-9:2024: Gaseous hydrogen — Fuelling stations — Part 9: Sampling for fuel quality analysis
GHG emissions assessment	• ISO/TS 19870:2023: Hydrogen technologies — Methodology for determining the greenhouse gas emissions associated with the production, conditioning and transport of hydrogen to consumption gate

- European level -

CEN/CLC/JTC 6 – Hydrogen in energy systems

Standards

2

Projects

4

National delegates

2

Scope

CEN/CLC/JTC 6 is dedicated to standardization in the field of systems, devices and connections for the production, storage, transport and distribution, measurement and use of hydrogen from renewable energy sources and other sources, in the context of the European strategy for the development and acceptance of the hydrogen market.

Main “CEN/CLC/JTC 6” Standards

Terms and definitions

- [EN ISO 24078:2025](#): Hydrogen in energy systems – Vocabulary

Production and safety

- [EN ISO 22734-1:2025](#): Hydrogen generators using water electrolysis - Part 1: Safety
- [PrCEN/TS](#): Hydrogen Gas Safety in Enclosed Spaces

GHG emissions assessment

- [prEN ISO 19870-1](#): Hydrogen technologies - Methodology for determining the greenhouse gas emissions associated with the hydrogen supply chain - Part 1: Emissions associated with the production of hydrogen to production gate

CEN/TC 23 – Transportable gas cylinders

Standards

101

Projects

13

National delegates

1

Scope

Standardization of transportable gas cylinders, their fittings, and requirements relating to their design, testing and operation.

Main “CEN/TC 23” Standards

Valve and fittings

- [EN ISO 10297:2024](#): Gas cylinders - Cylinder valves -Specification and type testing
- [EN ISO 13341:2025](#): Gas cylinders - Fitting of valves to gas cylinders
- [EN ISO 17879:2017](#): Gas cylinders - Self-closing cylinder valves - Specification

Cylinders and containers

- [EN 17533:2025](#): Gaseous hydrogen - Cylinders and tubes for stationary storage
- [EN 13807:2017](#): Transportable gas cylinders - Battery vehicles and multiple-element gas containers (MEGCs) - Design, manufacture, identification and testing