

2021

Diving Standards



Health & Safety Authority
January 2021

This information is provided for reference only. As standards are under regular review, readers can validate the status of National, European and International standards on the National Standards Authority of Ireland's website at www.standards.ie and the status of British Standards at www.bsigroup.com.

Irish Standards

The following is a non exhaustive list of Irish standards relating to diving.

Air Quality

1. EN 12021:2014 - Respiratory Equipment - Compressed Gases for Breathing Apparatus.

Buoyancy Compensators

- 1. I.S. EN 1809:2014 Diving Equipment Buoyancy Compensators Functional and Safety Requirements, Test Methods.
- 2. I.S. EN 12628:1999 Diving Accessories Combined Buoyancy and Rescue Devices Functional and Safety Requirement, Test Methods.

Cylinders and Valves

- I.S. EN 144-1:2018 Respiratory Protective Devices Gas Cylinder Valves Part 1: Inlet Connections.
- 2. I.S. EN 144-3:2003 Respiratory Protective Devices Gas Cylinder Valves Part 3: Outlet Connections for Diving Gases Nitrox and Oxygen.
- 3. I.S. EN 1089-3:2011 Transportable Gas Cylinders. Gas Cylinder Identification (excluding LPG)- Part 3. Colour Coding.
- 4. I.S. EN ISO 10460:2018 & LC:2019 Gas cylinders Welded aluminium-alloy, carbon and stainless steel gas cylinders Periodic inspection and testing (ISO 10460:2018)
- 5. I.S. EN 1920:2000 Transportable Gas Cylinders Cylinders for Compressed Gases (excluding acetylene) Inspection at Time of Filling.
- 6. I.S. EN 1964-3:2000 Transportable Gas Cylinders Specification for the Design and Construction of Refillable Transportable Seamless Steel Gas Cylinders of Water Capacities from 0.5 Litre up to and including 150 Litres Part 3: Cylinders Made of Seamless Stainless Steel with an R[M] Value of less than 1100MPa.
- 7. I.S. EN ISO 7225:2007 Gas Cylinders Precautionary Labels.
- 8. I.S. EN ISO 7866:2012 Gas Cylinders Refillable Seamless Aluminium Alloy Gas Cylinders Design, Construction And Testing.
- I.S. EN ISO 9809-1:2019 Gas Cylinders Design, Construction and Testing of Refillable Seamless Steel Gas Cylinders and Tubes - Part 1: Quenched and Tempered Steel Cylinders and Tubes with Tensile Strength less than 1100 MPa.

- 10. I.S. EN ISO 9809-3:2019 Gas Cylinders Design, Construction and Testing of Refillable Seamless Steel Gas Cylinders and Tubes Part 3: Normalised Steel Cylinders and Tubes.
- 11. I.S. EN ISO 11114-1:2020 Gas Cylinders Compatibility of Cylinder and Valve Materials with Gas Contents Part 1: Metallic Materials.
- 12. I.S. EN ISO 11114-2:2013 Gas Cylinders Compatibility of Cylinder and Valve Materials with Gas Contents Part 2: Non-Metallic Materials.
- 13. I.S. EN ISO 11114-3:2010 Gas Cylinders Compatibility of Cylinder and Valve Materials with Gas Contents Part 3: Autogenous Ignition Test for Non-Metallic Materials in Oxygen Atmosphere.
- 14. I.S. EN ISO 11621:2005 Gas Cylinders Procedures for Change of Gas Service.
- 15. I.S. EN ISO 11623:2015 Gas Cylinders Composite Construction Periodic Inspection and Testing.
- 16. I.S. EN ISO 18119:2018 Gas cylinders Seamless steel and seamless aluminium-alloy gas cylinders and tubes Periodic inspection and testing
- 17. I.S. EN ISO 12209:2013 Gas Cylinders Outlet Connections for Gas Cylinder Valves for Compressed Breathable Air.
- 18. I.S. EN 12245:2009 Transportable Gas Cylinders Fully Wrapped Composite Cylinders.
- 19. I.S. EN 12257:2002 Transportable Gas Cylinders Seamless, Hoop-Wrapped Composite Cylinders.
- 20. I.S. EN ISO 13341:2010 Gas Cylinders Fitting of Valves to Gas Cylinders.
- 21. I.S. EN ISO 13769:2009 Gas Cylinders Stamp Marking.
- 22. I.S. EN ISO 22434:2011 Transportable Gas Cylinders Inspection and Maintenance of Cylinder Valves.

Diving Accessories/Diving Equipment

- 1. I.S. EN 1972:2015 Diving Accessories Snorkels Safety Requirements and Test Methods.
- 2. I.S. EN 13319:2000 Diving Accessories Depth Gauges and Combined Depth and Time Measuring Devices Functional and Safety Requirements Test Methods.
- 3. I.S. EN 16804:2015 Diving Equipment Diving Open Heel Fins Requirements and Test Methods.
- 4. I.S. EN 16805:2015 Diving Equipment Diving Mask Requirements and Test Methods.

Diving Breathing Apparatus

- 1. I.S. EN 250:2014 Respiratory Equipment Open Circuit Self-Contained Compressed Air Diving Apparatus Requirements, Testing and Marking.
- 2. I.S. EN 13949:2003 Respiratory Equipment Open Circuit Self-Contained Diving Apparatus for use with Compressed Nitrox and Oxygen Requirements, Testing, Marking.
- 3. I.S. EN 14143:2013 Respiratory Equipment Self-Contained Re-Breathing Diving Apparatus.

- 4. I.S. EN 15333-1:2008 Respiratory Equipment Open-Circuit Umbilical Supplied Compressed Gas Diving Apparatus Part 1: Demand Apparatus.
- 5. I.S. EN 15333-2:2009 Respiratory Equipment Open-Circuit Umbilical Supplied Compressed Gas Diving Apparatus Part 2: Free Flow Apparatus.

Diving Suits

- 1. I.S. EN 14225-1:2017 Diving Suits Part 1: Wet Suits Requirements and Test Methods.
- 2. I.S. EN 14225-2:2017 Diving Suits Part 2: Dry Suits Requirements and Test Methods.
- 3. I.S. EN 14225-3:2017 Diving Suits Part 3: Actively Heated or Cooled Suit Systems Requirements and Test Methods.

Hyperbaric Welding

- 1. I.S. EN ISO 15618-1:2016 Qualification Testing Of Welders for Under-Water Welding. Part 1: Hyperbaric Wet Welding.
- 2. I.S. EN ISO 15618-2:2002 Qualification Testing Of Welders for Under-Water Welding. Part 2: Diver-Welders and Welding Operators for Hyperbaric Dry Welding.

Recreational Diving

- 1. I.S. EN ISO 11121:2017 Recreational Diving Services Requirements for Introductory Programmes to SCUBA diving.
- 2. I.S. EN ISO 13293:2012 Recreational Diving Services Requirements for Gas Blender Training Programmes.
- 3. I.S. EN ISO 21416:2019 Recreational diving services Requirements and guidance on environmentally sustainable practices in recreational diving.
- 4. EN ISO 24801-1:2014 Recreational Diving Services Requirements for the Training of Recreational SCUBA Divers Part 1: Level 1-Supervised Diver.
- 5. I.S. EN ISO 24801-2:2014 Recreational Diving Services Requirements for the Training of Recreational SCUBA Divers Part 2: Level 2 Autonomous Diver.
- 6. I.S. EN ISO 24801-3:2014 Recreational Diving Services Requirements for the Training of Recreational SCUBA Divers Part 3: Level 3 Dive Leader.
- 7. I.S. EN ISO 24802-1: 2014 Recreational Diving Services Requirements for the Training of SCUBA Instructors Part 1: Level 1.
- 8. I.S. EN ISO 24802-2:2014 Recreational Diving Services Requirements for the Training of SCUBA Instructors Part 2: Level 2.
- 9. I.S. EN ISO 24803:2017 Recreational Diving Services Requirements for Recreational Diving Providers.

British Standards

The following is a non-exhaustive list of British Standards that are also relevant to diving and work tasks carried out underwater.

Air Quality Standard

1. BS 8478: 2011 - Respiratory Protective Devices. Breathing Gases for Diving and Hyperbaric Applications. Requirements and Test Methods.

Carbon Dioxide Absorbent Materials

1. BS 8618:2015 - Granular Carbon Dioxide (CO₂) Absorbent Materials for Life Support, Diving, Hyper- and Hypobaric Applications. Specification.

Diving Accessories

1. BS ISO 18527-3:2020 – Eye and Face Protection for Sports Use. Requirements and Test Methods for Eyewear Intended to be Used for Surface Swimming.

Diving Breathing Apparatus

1. BS 8457:2016 - Respiratory Equipment. Breathing Gas Demand Regulator Used for Diving to Depths Greater Than 50 Metres. Requirements and Test Methods.

Diving Cylinders

- 1. BS 5045-7:2000 Transportable Gas Containers Part 7: Specification for Seamless Steel Gas Containers of Water Capacity 0.5L up to 15L for Special Portable Applications.
- 2. BS 5045-8:2000 Transportable Gas Containers Part 8: Specification for Seamless Aluminium Alloy Gas Containers of Water Capacity 0.5 L up to 15 L and up to 300 bar Charged Pressure at 15°C for Special Portable Application.

Hyperbaric Welding

1. BS 4515-1:2009 - Specification for Welding of Steel Pipelines on Land and Offshore Carbon and Carbon Manganese Steel Pipelines.

Oxygen Cleaning Standard

1. BS IEC 60877: 1999 – Procedures for Ensuring the Cleanliness of Industrial Process Measurement and Control Equipment in Oxygen Service.

ISO Standards

Recreational Diving

1. ISO 11107:2009 - Recreational Diving Services - Requirements for Training Programmes on Enriched Air Nitrox (EAN) Diving.