

2025

Diving Standards



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Irish Standards

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

Air Quality

1. <u>I.S. EN 12021:2014</u> - Respiratory equipment - Compressed gases for breathing apparatus.

Buoyancy Compensators

- 1. <u>I.S. EN 1809:2014</u> Diving equipment Buoyancy compensators Functional and safety requirements, test methods.
- 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. <u>I.S. EN 144-3:2003</u> Respiratory protective devices Gas cylinder valves Part 3: Outlet connections for diving gases nitrox and oxygen.
- 3. <u>I.S. EN 1089-3:2011</u> Transportable gas cylinders. Gas cylinder identification (excluding LPG) Part 3. Colour coding.
- 4. <u>I.S. EN ISO 10460:2018 & LC:2019</u> Gas cylinders Welded aluminium-alloy, carbon and stainless steel gas cylinders Periodic inspection and testing (ISO 10460:2018).
- 5. <u>I.S. EN 1964-3:2000</u> 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.
- I.S. EN ISO 7225:2007 & AI 2012 Gas cylinders Precautionary labels (ISO 7225:2005).
- I.S. EN ISO 7866:2012 &AC:2014 & A1:2020 Gas cylinders Refillable seamless aluminium alloy gas cylinders - Design, construction and testing – Amendment 1 (ISO 7866:2012/Amd 1:2020.
- 8. <u>I.S. EN ISO 9809-1:2019</u> 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 (ISO 9809-1:2019).

- 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 (ISO 9809-3:2019).
- 10. <u>I.S. EN ISO 10460:2018 & LC:2019</u> Gas cylinders Welded aluminium-alloy, carbon and stainless steel gas cylinders Periodic inspection and testing (ISO 10460:2018).
- 11. <u>I.S. EN ISO 11114-1:2020/A1:2023</u> Gas cylinders Compatibility of cylinder and valve materials with gas contents Part 1: Metallic materials Amendment 1 (ISO 11114-1:2020/Amd 1:2023).
- 12. <u>I.S. EN ISO 11114-2:2021</u> Gas cylinders Compatibility of cylinder and valve materials with gas contents Part 2: Non-metallic materials (ISO 11114- 2:2021).
- 13. <u>I.S. EN ISO 11114-3:2010</u> 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. <u>I.S. EN ISO 11623:2023</u> Gas cylinders Composite cylinders and tubes Periodic inspection and testing (ISO 11623:2023).
- 16. <u>I.S. EN ISO 18119:2018/A2:2024</u> Gas cylinders Seamless steel and seamless aluminium-alloy gas cylinders and tubes Periodic inspection and testing Amendment 2 (ISO 18119:2018/Amd 2:2024).
- 17. <u>I.S. EN ISO 12209:2013</u> Gas cylinders Outlet connections for gas cylinder valves for compressed breathable air (ISO 12209:2013).
- 18. I.S. EN 12245:2022 Transportable gas cylinders Fully wrapped composite cylinders.
- 19. <u>I.S. EN 12257:2002</u> Transportable gas cylinders Seamless, hoop-wrapped composite cylinders.
- 20. <u>I.S. EN ISO 13341:2010</u> Gas cylinders Fitting of valves to gas cylinders (ISO 13341:2010).
- 21. I.S. EN ISO 13769:2018 Gas cylinders Stamp marking (ISO 13769:2018).

Diving Accessories/Diving Equipment

- 1. I.S. EN 1972:2015 Diving equipment Snorkels Safety requirements and test methods.
- 2. <u>I.S. EN 13319:2000</u> Diving accessories Depth gauges and combined depth and time measuring devices Functional and safety requirements Test methods.
- 3. <u>I.S. EN 16804:2015</u> 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. <u>I.S. EN 250:2014</u> Respiratory equipment Open-circuit self-contained compressed air diving apparatus Requirements, testing and marking.
- 2. <u>I.S. EN 13949:2003</u> Respiratory Equipment Open-circuit self-contained diving apparatus for use with compressed nitrox and oxygen Requirements, testing, marking.

- 3. <u>I.S. EN 14143:2013</u> Respiratory equipment Self-contained re-breathing diving apparatus.
- 4. <u>I.S. EN 15333-1:2008</u> Respiratory equipment Open-circuit umbilical supplied compressed gas diving apparatus Part 1: Demand apparatus.
- 5. <u>I.S. EN 15333-2:2009</u> Respiratory equipment Open-circuit umbilical supplied compressed gas diving apparatus Part 2: Free flow apparatus.

Diving Suits

- 1. <u>I.S. EN 14225-1:2017</u> 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. <u>I.S. EN 14225-3:2017</u> Diving suits Part 3: Actively heated or cooled suit systems and components Requirements and test methods.

Hyperbaric Welding

- I.S. EN ISO 15618-1:2016 Qualification testing of welders for under-water welding -Part 1: Hyperbaric wet welding (ISO 15618-1:2016).
- 2. <u>I.S. EN ISO 15618-2:2002</u> Qualification testing of welders for under-water welding Part 2: Diver-welders and welding operators for hyperbaric dry welding.

Recreational Diving

- 1. <u>I.S. EN ISO 11121:2017</u> Recreational diving services Requirements for introductory programmes to SCUBA diving (ISO 11121:2017).
- 2. <u>I.S. EN ISO 13293:2012</u> Recreational diving services Requirements for gas blender training programmes (ISO 13293:2012).
- 3. <u>I.S. EN ISO 21416:2019</u> Recreational diving services Requirements and guidance on environmentally sustainable practices in recreational diving (ISO 21416:2019).
- 4. <u>I.S. EN ISO 21417:2019</u> Recreational diving services Requirements for training on environmental awareness for recreational divers (ISO 21417:2019).
- 5. <u>EN ISO 24801-1:2014</u> Recreational diving services Requirements for the training of recreational SCUBA divers Part 1: Level 1-Supervised diver (ISO 24801-1:2014).
- 6. <u>I.S. EN ISO 24801-2:2014</u> Recreational diving services Requirements for the training of recreational SCUBA divers Part 2: Level 2 Autonomous diver (ISO 24801-2:2014).
- 7. <u>I.S. EN ISO 24801-3:2014</u> Recreational diving services Requirements for the training of recreational SCUBA divers Part 3: Level 3 Dive leader (ISO 24801-3:2014).
- 8. <u>I.S. EN ISO 24802-1: 2014</u> Recreational diving services Requirements for the training of SCUBA instructors Part 1: Level 1 (ISO 24802-1:2014).
- 9. <u>I.S. EN ISO 24802-2:2014</u> Recreational diving services Requirements for the training of SCUBA instructors Part 2: Level 2 (ISO 24802-2:2014).
- 10. <u>I.S. EN ISO 24803:2017</u> Recreational diving services Requirements for recreational diving providers (ISO 24803:2017).

- 11. <u>I.S. EN ISO 24804:2022/A11:2024</u> Recreational diving services Requirements for rebreather diver training No-decompression diving.
- 12. <u>I.S. EN ISO 24805:2022/A11:2024</u> Recreational diving services Requirements for rebreather diver training Decompression diving to 45 m.
- 13. <u>I.S. EN ISO 24806:2023</u> Recreational diving services Requirements for rebreather diver training Decompression diving to 60 m (ISO 24806:2023).
- 14. <u>I.S. EN ISO 24807:2024</u>- Recreational diving services Requirements for rebreather diver training Decompression diving to 100 m (ISO 24807:2023).
- 15. <u>I.S. EN ISO 24808:2024/A11:2024</u> Recreational diving services Requirements for rebreather instructor training.

Scientific Diving

- 1. <u>I.S. EN ISO 8804-1:2024</u> Requirements for the training of scientific divers Part 1: Scientific divers (ISO 8804-1:2024).
- 2. <u>I.S. EN ISO 8804-2:2024</u> Requirements for the training of scientific divers Part 2: Advanced scientific divers (ISO 8804-2:2024).
- 3. <u>I.S. EN ISO 8804-3:2024</u> Requirements for the training of scientific divers Part 3: Scientific diving project leader (ISO 8804-3:2024).

British Standards

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

Carbon Dioxide Absorbent Materials

1. <u>BS 8618:2015</u> - Granular carbon dioxide (CO₂) absorbent materials for life support, diving, hyper- and hypobaric applications. Specification.

Diving Accessories

 24/30488605 DC BS ISO 18527-3:2020/Amd 1 – Eye and face protection for sports use – Part 3. Requirements and test methods for eyewear intended to be used for surface swimming. Amendment 1.

Diving Breathing Apparatus

1. <u>BS 8457:2016</u> - Respiratory equipment. Breathing gas demand regulator used for diving to depths greater than 50 metres. Requirements and test methods.

Diving Cylinders

- 1. <u>BS 5045-7:2000</u> Transportable gas containers Specification for seamless steel gas containers of water capacity 0.5L up to 15L for special portable applications.
- 2. <u>BS 5045-8:2000</u> Transportable gas containers 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. <u>BS 4515-1:2009</u> Specification for welding of steel pipelines on land and offshore Carbon and carbon manganese steel pipelines.
- 2. <u>BS 4515-2:2009</u> Specification for welding of steel pipelines on land and offshore Duplex stainless steel pipelines.

Oxygen Cleaning Standard

1. <u>BS IEC 60877: 1999</u> – Procedures for ensuring the cleanliness of industrial-process measurement and control equipment in oxygen service.

ISO Standards

Recreational Diving

1. <u>ISO 11107:2009</u> - Recreational Diving Services - Requirements for training programmes on enriched air nitrox (EAN) diving.