
Immersion suits —

**Part 3:
Test methods**

Combinaisons de protection thermique en cas d'immersion —

Partie 3: Méthodes d'essai



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Published in Switzerland

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 15027-3 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 162, *Protective clothing including hand and arm protection and lifejackets*, in collaboration with Technical Committee ISO/TC 188, *Small craft*, Subcommittee SC 1, *Personal safety equipment*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 15027-3:2002), which has been technically revised.

The main technical changes are:

- a) clarification that test subjects are human test subjects;
- b) addition of two sites for skin temperature measurement;
- c) revision of field of vision test;
- d) merger of 3.10 and 3.11 into one clause and renumbering of consecutive clauses;
- e) mean body temperature deleted;
- f) clarification that underclothing shall be specified by the manufacturer
- g) revision of requirements regarding the testing of a Class D suit.

ISO 15027 consists of the following parts, under the general title *Immersion suits*:

- *Part 1: Constant wear suits, requirements including safety*
- *Part 2: Abandonment suits, requirements including safety*
- *Part 3: Test methods*

Immersion suits —

Part 3: Test methods

1 Scope

This part of ISO 15027 specifies the test methods for constant wear suits, including helicopter transit suits, and abandonment suits.

Requirements for constant wear suits are given in ISO 15027-1:2012 and requirements for abandonment suits are given in ISO 15027-2:2012.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 590, *Automotive fuels — Diesel — Requirements and test methods*

ISO 811, *Textile fabrics — Determination of resistance to water penetration — Hydrostatic pressure test*

ISO 12402 (all parts), *Personal flotation devices*

ISO 13935-2, *Textiles — Seam tensile properties of fabrics and made-up textile articles — Part 2: Determination of maximum force to seam rupture using the grab method*

ISO 15027-1:2012, *Immersion suits — Part 1: Constant wear suits, requirements including safety*

ISO 15027-2:2012, *Immersion suits — Part 2: Abandonment suits, requirements including safety*

3 Testing of the device

3.1 General

Requirements, for which no special test methods are given in this part of ISO 15027, shall be tested in one of the following ways:

- a) by tests referred to in ISO 15027-1 and ISO 15027-2; or
- b) by measurement; or
- c) by visual assessment; or
- d) by functional test.

Prior to testing, materials and components shall be conditioned for $(24 \pm 0,1)$ h under standard atmosphere. The temperature cycling test and the rotating shock bin test shall be carried out as pre-conditioning before any other tests are carried out.