

§ 160.171-19

(n) *Tear resistance.* The tear resistance of suit material must be determined by the method described in ASTM D 1004. If more than one material is used, each material must be tested. If varying thickness of a material are used in the suit, samples representing the thinnest portion of the material must be tested. If multiple layers of a material are used in the suit, samples representing the layer on the exterior of the suit must be tested. Any material which is a composite formed of two or more materials bonded together is considered to be a single material. The average tearing strength of each material must be at least 45 Newtons (10 lb.).

(o) *Abrasion resistance.* The abrasion resistance of each type of suit material on the exterior of the suit must be determined by the method described in Federal Test Method Standard 191, Method 5304.1. If varying thicknesses of exterior suit material are used, samples representing the thinnest portion of the material must be tested. If exterior material has multiple layers, samples of the layer on the outside surface of the suit must be tested. Any exterior material which is a composite formed of two or more layers bonded together is considered to be a single material and the abrasant must be applied to the surface that is on the exterior of the suit. The residual breaking strength of each material must be at least 225 Newtons (50 lb.).

(p) *Test for oil resistance.* After all its apertures have been sealed, an immersion suit is immersed under a 100 mm head of diesel oil, grade No. 2-D as defined in ASTM D 975 (incorporated by reference, see § 160.171-3) for 24 hours. The surface oil is then wiped off and the immersion suit subjected to the leak test prescribed in § 160.171-17(c)(10). The ingress of water must not be greater than 200 grams.

[CGD 84-069a, 52 FR 1188, Jan. 12, 1987; USCG-2000-7790, 65 FR 58464, Sept. 29, 2000]

§ 160.171-19 Approval testing for child size immersion suit.

A child size suit must pass the following tests:

(a) The stability test prescribed in § 160.171-17(c)(8), except that only six children need be used as test subjects

46 CFR Ch. I (10-1-06 Edition)

and they can be of either sex. The subjects must be within the ranges of weight and height prescribed in § 160.171-9(m). The heaviest subject must weigh at least 10 kg (22 lb.) more than the lightest subject. During this test the face seal, neck and chin fit are evaluated and must be comparable to the fit of the corresponding adult size suit on an adult.

(b) The buoyancy test prescribed in § 160.171-17(g).

(c) The body strength test prescribed in § 160.171-17(k) except that the cylinders must be 50 mm (2 in.) in diameter and the test weight must be 55 kg (120 lb.).

§ 160.171-23 Marking.

(a) Each immersion suit must be marked with the words "IMMERSION SUIT—COMPLIES WITH SOLAS 74/83," the name of the manufacturer, the date of manufacturer, the model, the size, and the Coast Guard approval number.

(b) Each storage case must be marked with the words "immersion suit" and the size.

(c) The markings for the child size immersion suits required under paragraphs (a) and (b) of this section must also include the following statements in print smaller than the word "child": "(Small Adult Under 50 kg. (110 lb.))", and "Children Require Adult Assistance for Donning and Use."

(d) If an auxiliary means of buoyancy is removable and is needed to meet § 160.171-11(a)(2), the marking on the suit must indicate that the suit is not Coast Guard approved unless the auxiliary means of buoyancy is attached.

§ 160.171-25 Production testing.

(a) Immersion suit production testing is conducted under the procedures in this section and subpart 159.007 of this chapter.

(b) One out of every 100 immersion suits produced must be tested as prescribed in § 160.171-17(g) and must be given a complete visual examination. The suit must be selected at random from a production lot of 100 suits and tested by or under the supervision of the independent laboratory. A suit fails this test if—

(1) The measured buoyancy of the suit differs by more than 10% from the measured buoyancy of the suit tested for approval,

(2) The adjusted buoyancy of the suit calculated using the buoyancy loss factor determined during approval testing is less than that required in §160.171-11(a)(1), or

(3) The visual examination shows that the suit does not conform to the approved design.

(c) If the suit fails to pass the test as prescribed in paragraph (b)(1) or (b)(2) of this section, 10 additional suits from the same lot must be selected at random and subjected to the test. If a de-

fect in the suit is detected upon visual examination, 10 additional suits from the same lot must be selected at random and examined for the defect.

(d) If one or more of the 10 suits fails to pass the test or examination, each suit in the lot must be tested or examined for the defect for which the lot was rejected. Only suits that pass the test or that are free of defects may be sold as Coast Guard approved.

(e) The manufacturer must ensure that the quality control procedure described in the test plans previously submitted for approval under §159.005-9(a)(5)(iii) is followed.

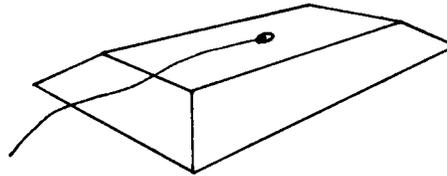


FIGURE 160.171(E)(1)(I). WATER CAN FOR INSULATION TEST

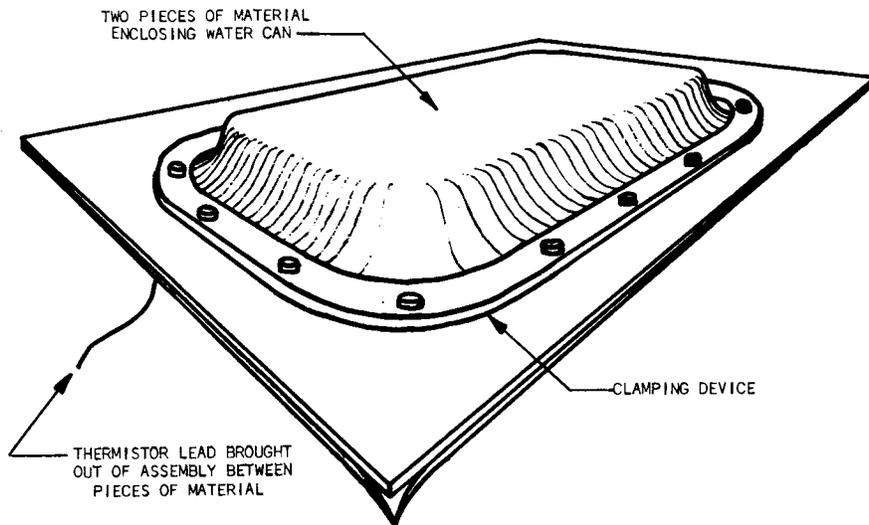


FIGURE 160.171-17(E)(1)(V). INSULATION TEST ASSEMBLY

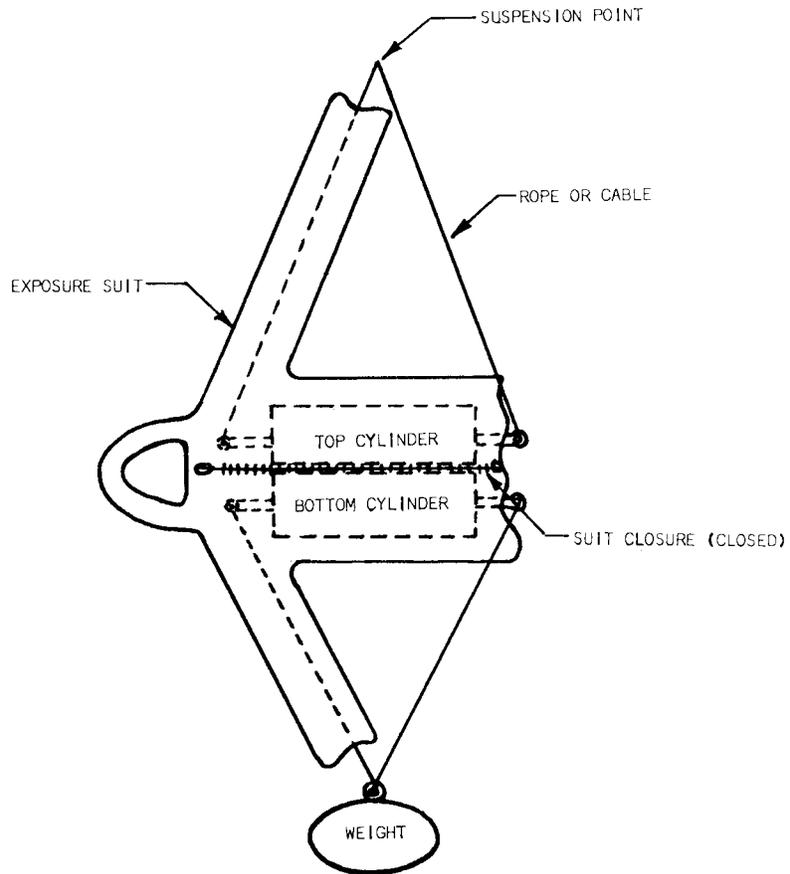


Figure 160.071-17(1)(1). Body strength test apparatus.

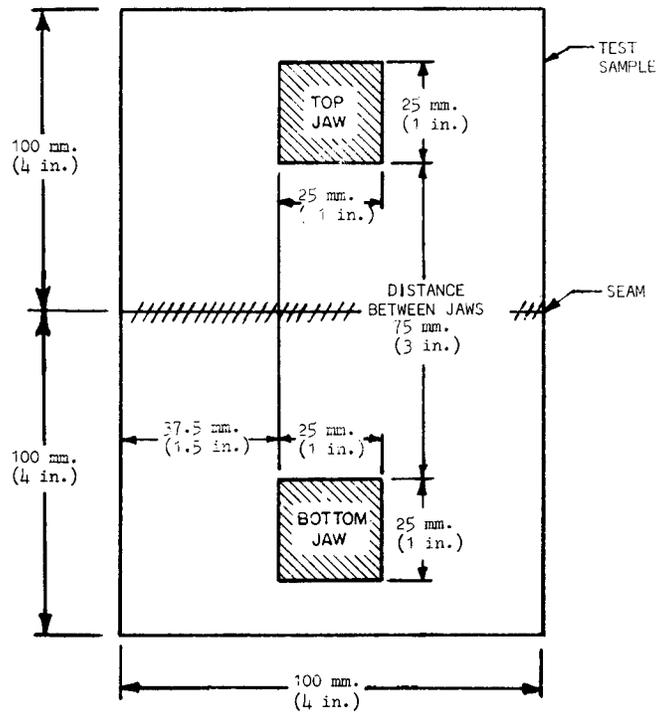


Figure 160.071-17(m)(3).

Method of mounting sample for seam strength test.

Subpart 160.174—Thermal Protective Aids

SOURCE: CGD 84-069b, 51 FR 19343, May 29, 1986, unless otherwise noted.

§ 160.174-1 Scope.

This subpart contains construction and performance requirements, and approval tests for thermal protective aids that are designed to minimize the occurrence of or aid in the recovery from hypothermia (lowered body temperature) during long periods in a survival craft.

§ 160.174-3 Incorporation by reference.

(a) Certain materials are incorporated by reference into this subchapter with the approval of the Director of the Federal Register. The Office of the Federal Register publishes a table, "Material Approved for Incorporation by Reference," which appears in the Finding Aids section of this volume. In that table is found citations to the particular sections of this part where the material is incorporated and the date of the approval by the Director of the Federal Register. To enforce any edition other than the one listed in paragraph (b) of the section, notice of