



Standard Test Method for Weighing a Backpacking or Mountaineering Tent¹

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1. Scope

1.1 This test method covers requirements for weighing and marking tents for use in the sports of backpacking and mountaineering.

1.2 This test method may contain test methods that do not entirely simulate real life situations. The test methods are designed to give reproducible results in a laboratory and, thereby, a means for product comparison.

1.3 The values stated in SI units are to be regarded as the standard. Inch-pound units appearing in parentheses are for information only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[E4 Practices for Force Verification of Testing Machines](#)

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *minimum tent weight, n*—the combined weight of the tent body, tent fly (if applicable), and tent poles.

3.1.2 *packaged tent weight, n*—the weight of the tent package as it is for sale to a customer, including the tent body, fly, and poles, as well as any other items that may be included, such as tent stakes, seam sealers, guy lines, instructions, stuff sack, etc.

3.1.3 *tent, n*—a portable shelter made primarily of fabric weighing less than 102 g/m² (3 oz/yd²), designed to be carried by the occupants while backpacking or mountaineering.

¹ This test method is under the jurisdiction of ASTM Committee F08 on Sports Equipment and Facilities and is the direct responsibility of Subcommittee F08.22 on Camping Softgoods.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

4. Summary of Test Method

4.1 Representative samples of tents are weighed on a calibrated scale. If a prototype tent is used for testing, the results must state that a prototype was used.

5. Significance and Use

5.1 The minimum and packaged weight of a tent are properties used by consumers to evaluate tents. The weight may also be used for specifications, manufacturing standards, and quality control.

6. Apparatus

6.1 *Calibrated Scale*, within the weight range of the tent.

7. Sampling, Test Specimens, and Test Units

7.1 Tent test specimens shall be new and in unused condition, selected randomly from a production lot of a given model of tent. They shall conform in all respects to the manufacturer's specifications for the model to be tested. A quantity of five tents is required.

8. Calibration and Standardization

8.1 Test equipment is to be in accordance with Practices [E4](#) and other requirements specific to the equipment.

9. Conditioning

9.1 Tests may be completed under ambient conditions. In cases of dispute, test samples shall be conditioned in accordance with [9.2](#).

9.2 Erect and dry the tent samples in an atmosphere with a relative humidity of <10 % for a minimum of 24 h; then, place the tent samples in an atmosphere of 50 ± 5 % relative humidity, 20 ± 2°C for a minimum of 72 h. Tests may then be done outside the conditioning room, but the temperature shall be 23 ± 5°C, the tests shall begin within 5 min of removal from conditioning, and be completed within 4 h.

10. Procedure

10.1 *Minimum Tent Weight*—Place the tent body, rain fly (if provided), and poles on the calibrated scale. Record the average of the five tents weighed to the nearest gram.

10.2 *Packaged Tent Weight*—Place the individual tent, complete with all accessories and packaging as sold, on a calibrated

scale. Record the average of the five tents weighed to the nearest gram. Also record a complete list of items and quantities.

11. Report

11.1 Report the following information:

11.1.1 Name of the tent manufacturer,

11.1.2 Model of tent tested,

11.1.3 Date and location of the tests,

11.1.4 Name(s) of the personnel conducting the tests,

11.1.5 Whether the tent is a production model or a prototype,

11.1.6 Average minimum tent weight,

11.1.7 Average packaged tent weight,

11.1.8 A comprehensive list of all items included in the packaged tent weight, and

11.1.9 Any deviations from this test method.

11.2 Markings, if included in the tent or marketing literature, shall reference this test method.

12. Precision and Bias

12.1 The precision of this test method is within 1 %, the specified scale tolerance. The bias of this test method for measuring tent weight has not been determined.

13. Keywords

13.1 backpacking; mountaineering; tents; weight

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