



Standard Test Method for Measuring the Peak Height of a Backpacking or Mountaineering Tent¹

This standard is issued under the fixed designation F 1935; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

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

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

1.3 *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. Terminology

2.1 *Definitions of Terms Specific to This Standard:*

2.1.1 *tent*—a portable shelter made primarily of fabric weighing less than 3 oz/y², designed to be carried by the occupants for while backpacking or mountaineering.

2.1.2 *usable peak height*—the interior vertical measurement of a tent measured from the tent floor to the high point on the ceiling using a simple fixture that simulates an average users head and shoulders.

3. Significance and Use

3.1 This test method can be used to quantify and compare peak height of backpacking and mountaineering tents. The measured peak height can be used as a manufacturing standard or a measurement that can be used by consumers to compare the interior height of a variety of tents, or both.

4. Apparatus

4.1 *Specifications for Peak Height Measurement Fixture (see Fig. 1):*

4.1.1 *Ellipse to Simulate Shoulders*—The major axis shall be 17.8 in. (50th percentile of shoulder widths from the Human Scale²), and the minor axis shall be 9 in. (50th percentile of chest depth from Human Scale.² For construction purposes, the foci distance shall be 15.34 in.

¹ This test method is under the jurisdiction of ASTM Committee F-8 on Sports Equipment and Facilities and is the direct responsibility of Subcommittee F08.22 on Camping Softgoods.

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² Diffrient, Tilly, and Bardagjy, *Human Scale 1/2/3*, MIT Press, 1974.

4.1.2 *Cylinder*—The diameter of the cylinder should be 7.7 in. (50th percentile of depth of head from the Human Scale²). The height of the cylinder shall be 14.4 in. (50th percentile of distance from top of head to shoulder joint from the Human Scale²).

4.1.3 *Tape Measure, ¼ in. Graduations*—The tape zero point shall be the top of the cylinder. If the tape is mounted to the bottom of the fixture, the height of the cylinder plus thickness of the ellipse shall be accounted for.

5. Summary of Test Method

5.1 The tent should be pitched on a flat surface in accordance with the company's supplied pitching instructions .

5.2 The fixture shall be placed inside the tent. The cylinder is raised until either the top of the cylinder or the sides of the ellipse come into contact with the ceiling, walls, poles, or any other obstructions inside the tent.

5.3 The tape measure will now be hanging directly below the cylinder. The peak height measurement will be where the measuring tape hits the tent floor. If the tent does not have a floor, record the measurement to the surface the tent has been set up on.

6. Conditioning

6.1 Tests may be completed under ambient conditions. In cases of dispute, test samples shall be conditioned in accordance with 6.2.

6.2 The tent samples are first erected and dried in an atmosphere with a relative humidity of less than 10 % for a minimum period of 24 h. They are then placed in an atmosphere of 50 ± 5 % relative humidity, 20 ± 2 °C for a minimum period of 72 h. Tests may then be done outside the conditioning room, but the temperature shall be 23 ± 5 °C and the tests shall begin within 5 min. of removal from conditioning and be completed within 4 h.

7. Sampling, Test Specimens, and Test Units

7.1 The tent test specimen shall be new and in unused condition. When possible, it shall be selected randomly from a production lot of a given model of tent. It shall conform in all respects to the manufacturer's specifications for that model.

8. Report

8.1 The test report shall include the name of the tent