



The following commercial specification is originally adopted from the military document. Revision A includes all known accepted revisions, amendments, notices, and Department of Defense (DoD) engineering changes previously developed for this item. Revision B and forward include changes adopted to reflect technology and design evolution.

LENGTH PER UNIT WEIGHT; CORDAGE

1. SCOPE

1.1 This method is intended for determining the length-weight relationship of natural and synthetic fiber cordage.

2. TEST SPECIMEN

2.1 The test specimen size shall be as specified below:

SPECIMEN SIZE

<u>Specimen</u>	<u>Length (Minimum)</u>	
	<u>Feet</u>	<u>Meters</u>
Cordage - less than 3 inches (76 mm) in circumference	10	3.0
Cordage - 3 inches (76 mm) to 6 inches (152 mm) inclusive in circumference	5	1.5
Cordage - over 6 inches (152 mm) in circumference	3	0.91

3. NUMBER OF DETERMINATIONS

3.1 Unless otherwise specified in the procurement document, one determination shall be made on each sample unit.

4. APPARATUS

4.1 Tension apparatus. Any suitable device may be used for required load.

4.2 Balance. A balance capable of weighing the specimen to an accuracy of 0.25 percent of the specimen weight.

4.3 Measurement stick or metal tape. Yardstick, meterstick, metal tape or other suitable measuring device graduated in increments of 1/16 inch (1 mm).

DISTRIBUTION STATEMENT: All Rights Reserved. No Part of this publication may be reproduced without prior written permission from Parachute Industry Association. Additional copies may be purchased on-line from PIA

Specifications and Products at: www.pia.com

Licensee=/, User=,

Not for Resale.

Full document details: PIA PIA-TEST METHOD-6004C (2007)

5. PROCEDURE

5.1 Care should be exercised in removing the specimen without alteration of the turns in twisted, braided or plaited construction.

5.2 Tension a suitable length of the cordage with a weight equal to 1 percent of the minimum breaking strength specified for the cordage. The appropriate length as specified in 2.1 shall be marked to the nearest 1/16 inch (1 mm) on the cordage within 2 minutes of the application of tension.

5.3 Relax the tension on the cordage and cut out the specimen as marked.

5.4 The test specimen shall then be weighed to 0.25 percent of its weight and the weight "W" recorded.

5.5 Calculation.

5.5.1 Length per unit weight shall be calculated as follows:

$$\frac{L}{W} = \text{Length per unit weight}$$

Where: L = Length of specimen in yards, feet or meters, as applicable.
W = Weight of specimen in pounds or kilograms, as applicable.

6. REPORT

6.1 The length per unit weight shall be reported to the same accuracy as the specified requirement.

Notice: This document has been adopted from the original FED-STD-191 TEXTILE TEST METHOD of the same number, and is being maintained as a commercial specification by the Parachute Industry Association. Orders, inquiries and comments should be addressed to PIA, Specification Committee via e-mail at: specs@pia.com or to our website at: www.pia.com.

Disclaimer: This document is published by the PIA to provide technical and engineering standards that can be used for reference by all those who may benefit from them. The use of this document is entirely voluntary, and its applicability and suitability for any particular use, including any patent or trademark infringement arising there from, is the sole responsibility of the user. The original Government document was scanned. The PIA reviews each technical publication periodically, at which it may be reaffirmed, revised, or canceled. The PIA invites your written comments and suggestions.

Copyright © 2005-2013 Parachute Industry Association.