

Standard Method of Test for

STRETCH OF HOSIERY¹



ASTM Designation: D 1058-51

ADOPTED, 1951.²

This Standard of the American Society for Testing Materials is issued under the fixed designation D 1058; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. This method covers procedures for testing the stretch of various parts of all types of hosiery regardless of the methods, materials, or constructions used.

NOTE.—This method does not establish any specifications and tolerances which may be desirable, but merely presents the methods by which hosiery may be tested to determine if it conforms to such specifications and tolerances when established.

Significance of Test

2. The results of this test show the stretch of the hosiery sample in the location tested and under the tension used, but do not of themselves indicate whether the hosiery tested will fit correctly when worn. This quality must be tested by other methods such as stretch and recovery tests, tests on special leg forms, or live models. However, when a given hosiery sample has been found to have correct fitting properties and its stretch determined as

described in this method, the results will prove valuable in controlling production to insure that desired stretch characteristics are being maintained.

Apparatus

3. (a) *Constant-Rate-of-Traverse Machine*.—The constant-rate-of-traverse machine of the approved type shall conform to the Standard Specifications for Textile Testing Machines (A.S.T.M. Designation D 76).³ It shall be operated at a speed of 12 ± 0.5 in. per min. and with the following modifications for this particular test:

(1) The motor drive or the driving pulley shall have a positive action brake capable of stopping the driving pulley within one-half a revolution.

(2) An electrical device for controlling this brake which may be manually controlled, but should preferably be equipped with a limit switch to stop the test at the desired end point.

(3) Jaws of such a design as shown in Fig. 1, so as to apply 1 sq. in. of pressure area throughout the various testing areas

¹ Under the standardization procedure of the Society, this method is under the jurisdiction of the A.S.T.M. Committee D-13 on Textile Materials.

² Prior to adoption as standard, this method was published as tentative from 1949 to 1951.

³ Appears in this publication, see Contents in Numeric Sequence of ASTM Designations at front of book.