



Standard Test Method for DIMENSIONAL CHANGES IN LAUNDERING OF WOVEN OR KNITTED TEXTILES^{1, 2}

This Standard is issued under the fixed designation D 1905; 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.

1. Scope

1.1 This method covers the determination of the dimensional changes in woven or knitted fabrics when the cloth is subjected to laundering procedures commonly used in a commercial laundry or in the home.

NOTE 1—For the measurement of dimensional changes of wool fabrics, refer to Method D 1284, Test for Relaxation and Consolidation Dimensional Changes of Stabilized Knit Wool Fabrics³ and Method D 462, Testing and Tolerances for Certain Wool and Part Wool Fabrics.³

2. Applicable Documents

2.1 ASTM Standards:

D 123 Definitions of Terms Relating to Textiles⁴

D 496 Specification for Chip Soap⁵

D 1776 Recommended Practice for Conditioning Textiles and Textile Products for Testing⁴

2.2 Other Standards:

P-S-579a Federal Specification for Soap, Laundry, Chip and Powdered

3. Definitions

3.1 For definitions of terms used in this method, refer to Definitions D 123.

4. Summary of Method

4.1 A specified load of fabric specimens or garments is washed in a cylindrical reversing wash wheel, dried, and subjected to restorative forces where necessary. The temperature and time agitation in the wash wheel can be varied to obtain different degrees of severity. Drying procedures and the application of restorative forces can be varied to conform with

normal handling encountered during home or commercial laundering. The distances between bench marks on the specimen in the warp and filling directions for woven fabrics (or wales and courses for knitted fabrics) are measured before washing, after drying, and after the restoration procedure (if any). From these measurements, the changes in dimension are calculated.

5. Uses and Significance

5.1 The procedures in this method are not recommended for acceptance testing because between-laboratory precision has been established (See Note 9, Section 15).

5.2 Five washing test procedures are included, ranging from very severe to very mild, and are intended to cover the range of practical washing from commercial procedures to hand washing. Five drying test procedures are included to cover the range of drying techniques used in the home and commercial laundries. Three methods for determining the dimensional restorability characteristics are included for those textiles which require restoration by ironing or pressing after laundering. These procedures are not accelerated tests and

¹ This method is under the jurisdiction of ASTM Committee D-13 on Textiles, and is the direct responsibility of Subcommittee D13.59 on Fabric Test Methods.

Current edition approved June 27, 1973. Published August 1973. Originally published as D 1905 - 61 T as a consolidation and revision of former Methods D 416, D 437 - 36, D 1470 - 59 T, D 1487 - 57 T, and D 1773 - 60 T. Last previous edition D 1905 - 68.

² The precision of this method is such that the method's usefulness as an acceptance test is dubious. Additional work is underway by the Subcommittee responsible for this method to improve the precision of this method.

³ *Annual Book of ASTM Standards*, Part 32.

⁴ *Annual Book of ASTM Standards*, Parts 32 and 33.

⁵ *Annual Book of ASTM Standards*, Part 30.