



Standard Test Methods for Strength Tests for Zippers¹

This standard is issued under the fixed designation D 2061; 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 These test methods cover the determination of the strengths for zipper and zipper parts. All methods are not suitable for use with all kinds of zipper. The restrictions, if any, are indicated in the scope for each individual test method. The test methods appear as follows:

	Sections
Holding Strengths of Separable Units	25-32
Holding Strength of Slider Lock	82-90
Holding Strength of Stops	17-24
Resistance to Angular Pull-Off of Slider Pull	72-81
Resistance to Cushioned Compression of Sliders	33-42
Resistance to Pull-Off of Slider Pull	62-71
Resistance to Twist of Pull and Slider	52-61
Slider Deflection and Recovery	43-51
Strength of Chains and Elements	9-16

1.2 The values stated in SI units are to be regarded as the standard.

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. Referenced Documents

2.1 ASTM Standards:²

- D 76 Specification for Tensile Testing Machines for Textiles
- D 123 Terminology Relating to Textiles
- D 1776 Practice for Conditioning Textiles for Testing
- D 2050 Terminology Relating to Zippers
- D 2051 Test Method for Durability of Finish of Zippers to Laundering
- D 2052 Test Method for Colorfastness of Zippers to Drycleaning
- D 2053 Test Method for Colorfastness of Zippers to Light

D 2054 Test Method for Colorfastness of Zipper Tapes to Crocking

D 2057 Test Method for Colorfastness of Zippers to Laundering

D 2058 Test Method for Durability of Finish of Zippers to Drycleaning

D 2059 Test Method for Resistance of Zippers to Salt Spray (Fog)

D 2060 Test Methods for Measuring Zipper Dimensions

D 2062 Test Methods for Operability of Zippers

2.2 U. S. Government Standard:

MIL-105D Sampling Procedures and Tables for Inspection by Attributes³

3. Terminology

3.1 Definitions:

3.1.1 For definitions of zipper terms used in this standard, refer to Terminology D 2050. For definitions of other textile terminology used in this standard, refer to Terminology D 123.

4. Significance and Use

4.1 The usefulness of a zipper in service can be evaluated by these tests. No one test determines the suitability of a zipper for a specific end use. Since the tests are inter-related more than one may be needed for a complete evaluation.

4.2 These methods are considered satisfactory for acceptance testing of commercial shipments because the methods have been used extensively in the trade for this purpose, and because estimates of current between-laboratory precision are acceptable in most cases.

4.2.1 If there are differences of practical significance between reported test results for two laboratories (or more), comparative test should be performed to determine if there is a statistical bias between them, using competent statistical assistance. As a minimum, the test samples should be used that are as homogeneous as possible, that are drawn from the material from which the disparate test results were obtained, and that are randomly assigned in equal numbers to each laboratory for testing. Other materials with established test values may be used for this purpose. The test results from the two laboratories

¹ These test methods are under the jurisdiction of ASTM Committee D13 on Textiles are the direct responsibility of Subcommittee D13.54 on Subassemblies and were developed in cooperation with the American Fastener and Closure Assn.

Current edition approved Dec. 1, 2003. Published December 2003. Originally approved in 1961. Last previous edition approved in 1998 as D 2061 – 93 (1998).

² For referenced ASTM standards, visit the ASTM web site, 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 web site.

³ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.