



Standard Specification for Glass Fiber Cord and Sewing Thread¹

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1. Scope

1.1 This specification covers the requirements for continuous glass filament sewing thread; and continuous filament cord, untreated and neoprene treated.

1.2 This specification is intended to assist ultimate users by designating the types of these products that are typical in the industry.

1.3 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

1.4 *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:

- D 76 Specification for Tensile Testing Machines for Textiles²
- D 123 Terminology Relating to Textiles²
- D 204 Test Methods for Sewing Threads²
- D 578 Specification for Glass Fiber Strands²
- D 1423 Test Method for Twist in Yarns by the Direct-Counting Method²
- D 1776 Practice for Conditioning Textiles for Testing²
- D 1907 Test Method for Yarn Number by the Skein Method²
- D 2256 Test Method for Tensile Properties of Yarns by the Single-Strand Method²
- D 4963 Test Method for Ignition Loss of Glass Strands and Fabrics³

2.2 ANSI Standard:

ANSI/ASQC Z1.4 Sampling Procedures for Inspection by Attributes⁴

3. Terminology

3.1 Definitions:

3.1.1 *cord, n*—of glass fiber, a strand made by combining multiple ends of filament stands, including cabled yarns, primarily for structural application.

3.1.2 *neoprene treated, n, adj*—in glass fiber, a descriptive term for the application of polychloroprene rubber compound to improve the stability, knot holding properties, and abrasion resistance of the cord.

3.1.3 *sewing thread, n*—a flexible, small diameter yarn or strand, usually treated with a surface coating, lubricant, or both, intended to be used to stitch one or more pieces of material or an object to a material.

3.1.4 *twist balance, n*—in glass fiber cord and sewing thread, the relationship of primary and final twist to each other and to the cord size such that residual torsional effects are nullified.

3.1.5 *untreated, n, adj*—a descriptive term for glass fiber yarns having no applied chemicals or coatings, other than the minimal lubricant or binder used to control intra-fiber abrasion.

3.1.6 For definitions of other textile terms used in this specification, refer to Terminology D 123.

4. Designation of Construction

4.1 The yarn designations of fiber glass cords and sewing threads are specified as directed in Specification D 578 except that for the cords either the letter “U” or the letter “N” is added to the last segment of the designation.

4.1.1 Cord designations may include a type number that describes the relative diameter of the cords and treatment. The first character of this designation is a numeral from 1 to 10 that indicates the relative diameter of the cord to other cords, that is, 2 is larger than 1, 3 is larger than 2, etc. The second character of this designation is the letter “U” or the letter “N”. The “U” indicates that the cord is untreated, and the “N” indicates that the cord is neoprene treated. The type number for cord is included in Tables 1 and 2 to show its relationship to designation.

4.1.2 Sewing thread construction includes a type number that describes a manufacturer’s code and the size. The second

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² Annual Book of ASTM Standards, Vol 07.01.

³ Annual Book of ASTM Standards, Vol 07.02.

⁴ Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

