Designation: D3823 – 07 (Reapproved 2012)

Standard Practice for Determining Ticket Numbers for Sewing Threads[1]

This standard is issued under the fixed designation D3823; 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 This practice establishes standard ticket numbers for sewing thread regardless of fiber content or type of thread.

1.2 The values stated in inch-pound units are to be regarded as the standard; the values in English units are provided as information only and are not exact equivalents.

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]

D123 Terminology Relating to Textiles
D204 Test Methods for Sewing Threads
D1907 Test Method for Linear Density of Yarn (Yarn Number) by the Skein Method
D4849 Terminology Related to Yarns and Fibers

2.2 *ANSI Standard:*[3]

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

3. Terminology

3.1 For all terminology relating to D13.58, Yarns and Fibers, refer to Terminology D4849.

3.1.1 The following terms are relevant to this standard: geige thread, sewing thread, ticket number.

3.2 For all other terms are related to textiles, refer to Terminology D123.

4. Significance and Use

4.1 This system of sewing thread ticket numbers was developed to overcome the confusion arising from the use by the thread industry of a multiple number of undefined and unrelated ticketing systems.

4.2 The practice is used by sewing thread manufacturers to determine the ticket number to be assigned to a sewing thread. The ticket number is an indicator of the amount of raw fiber in the thread. It is based on greige thread rather than finished thread because finishing processes such as bleaching, dyeing, stretching, mercerizing, or sewing finish application significantly change the apparent thread size so that it may become an inadequate indicator of raw fiber present. Because of the foregoing it is not practical to verify the ticket number by sizing the finished thread.

5. Sampling

5.1 *Lot*—Unless otherwise agreed upon between the purchaser and supplier, a lot shall be a discrete manufacturing unit produced in a given period of time not to exceed a calendar month.

5.2 *Lot Sample*—Select the number of specimens as directed in ANSI/ASQC Z1.4 using single sampling with a general inspection level of S1 and a 1.0 AQL.

5.3 *Laboratory Sample*—As a laboratory sample for acceptance testing, take each unit in the lot sample.

5.4 *Test Specimens*—From each package in the laboratory sample, take one specimen.

6. Requirements

6.1 Sewing thread ticket numbers shall be based on the average resultant yarn number and shall be designated as indicated in Table 1.

7. Procedure

7.1 Determine in tex the resultant yarn number of the greige thread as directed in Test Methods D204.

7.2 Over the most recent 6 months of a 1-year period in which the greige thread was manufactured, collect at least 100 pairs of data, each consisting of a tex value and the production rate at the time each tex value was obtained. If the greige thread of interest has not been produced in at least 6 of the prior

[1] This practice is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.58 on Yarns and Fibers.

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[2] For referenced ASTM standards, visit the ASTM website, 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 website.

[3] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

TABLE 1 Thread Ticket Number

Resultant Yarn Number, Tex[A]	Ticket Number
Up to but not including 2	1
2 to but not including 3	2
3 to but not including 4	3
4 to but not including 5	4
5 to but not including 6	5
6 to but not including 7	6
7 to but not including 8	7
8 to but not including 9	8
9 to but not including 10	9
10 to but not including 12	10
12 to but not including 14	12
14 to but not including 16	14
16 to but not including 18	16
18 to but not including 21	18
21 to but not including 24	21
24 to but not including 27	24
27 to but not including 30	27
30 to but not including 35	30
35 to but not including 40	35
40 to but not including 45	40
45 to but not including 50	45
50 to but not including 60	50
60 to but not including 70	60
70 to but not including 80	70
80 to but not including 90	80
90 to but not including 105	90
105 to but not including 120	105
120 to but not including 135	120
135 to but not including 150	135
150 to but not including 180	150
180 to but not including 210	180
210 to but not including 240	210
240 to but not including 270	240
270 to but not including 300	270
300 to but not including 350	300
350 to but not including 400	350
400 to but not including 450	400
450 to but not including 500	450
500 to but not including 600	500

[A] The ticket number for thread having resultant yarn numbers of 600 tex and greater will be in steps of 100 for each 100 tex number increase in the resultant yarn number.

12 months, collect at least 100 pairs of data consisting of a tex value and the corresponding production rate covering the period(s) during which the thread was being produced.

7.3 Calculate the weighted average of the resultant yarn number using Eq 1:

$$w = \sum tr / \sum r \quad (1)$$

where:

w = weighted average of resultant yarn number, tex,
t = single value of resultant yarn number, tex, and
r = production rate associated with a single resultant yarn number, kg/unit time (lb/unit time).

7.4 Use Table 1 to convert w to the thread ticket number.

8. Precision and Bias

8.1 The precision and bias of this practice for testing resultant yarn number are as given in Test Method D1907.

9. Keywords

9.1 sewing thread; ticket number; yarn number