



Designation: D 2260 – 02<sub>3</sub>

## Standard Tables of Conversion Factors and Equivalent Yarn Numbers Measured in Various Numbering Systems<sup>1</sup>

This standard is issued under the fixed designation D 2260; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 These tables include (1) a series of conversion factors required to convert the number of a yarn measured in a specific system to the equivalent number measured in various other systems (see Table 1), and (2) specific equivalent numbers for yarns measured in various systems (see Table 2).

1.2 The content is basically consistent with recommendations of the International Organization for Standardization (ISO) Standard 2947.

### 2. Referenced Documents

2.1 *ASTM Standards:*

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<sup>1</sup> These tables are under the jurisdiction of ASTM Committee D13 on Textiles and are the direct responsibility of Subcommittee D13.58 on Yarn and Fiber Test Methods. Current edition approved Nov. 10, 2002<sub>3</sub>. Published January April 2003. Originally approved in 1964. Last previous edition approved in 200+<sub>2</sub> as D2260 – 0+<sub>2</sub>.

**TABLE 1 Conversion Factors for Converting from One Yarn Numbering System to Another<sup>A</sup>**

System for Which Yarn Number is Needed	System for Which Yarn Number is Known								
	Tex <sup>B</sup>	Denier	American Grain Count	Cotton Count	Worsted Count	Woolen Run	Metric Count	Linen Lea Woolen Cut	Yd/lb
Tex <sup>B</sup> (g/1000 m)	tex = ...	den 9	0.590 541 × gr	590.541 cc	885.812 wc	310.034 wr	1 000 mc	1 653.52 lea	496 055 y
Denier (g/9000 m)	den = 9 × tex	...	5.314 87 × gr	5 314.87 cc	7 972.31 wc	2 790.31 wr	9 000 mc	14 881.6 lea	4 464 492 y
American Grain Count (grains/120 yd)	gr = tex 0.590 541	den 5.314 87	...	1 000 cc	1 500 wc	525 wr	1 693.36 mc	2 800 lea	840 000 y
Cotton count (840 yd lengths/lb)	cc = 590.541 tex	5 314.87 den	1 000 gr	...	wc 1.5	wr 0.525	0.590 541 × mc	lea 2.8	y 840
Worsted count (560 yd lengths/lb)	wc = 885.812 tex	7 972.31 den	1 500 gr	1.5 × cc	...	wr 0.35	0.885 812 × mc	lea 1.866 67	y 560
Woolen run (1600 yd lengths/lb)	wr = 310.034 tex	2 790.31 den	525 gr	0.525 × cc	0.35 × wc	...	0.310 034 × mc	0.187 5 ×lea	y 1 600
Metric count (1000 m/kg)	mc = 1 000 tex	9 000 den	1 693.36 gr	cc 0.590 541	wc 0.885 812	wr 0.310 034	...	lea 1.653 52	y 496.055
Linen lea (300 yd lengths/lb)	lea = 1 653.52 tex	14 881.6 den	2 800 gr	2.8 × cc	1.866 67 × wc	0.187 5 × wr	1.653 52 × mc	...	y 300
Yards per pound (yd/lb)	y = 496 055 tex	4 464 492 den	840 000 gr	840 × cc	560 × wc	1600 × wr	496.055 × mc	300 × lea	...

<sup>A</sup> The conversion factors are based on the following relationships given in Metric Practice SI 10: 1 yard = 0.9144 m, exactly, and 1 lb (avoirdupois) = 0.453 592 37 kg, exactly. The conversion factors in Table 1 containing fewer than six significant digits are exact values.

<sup>B</sup> Multiples and submultiples of this basic unit may be used as a convenience to avoid large numbers or decimal fractions. For example, decitex (dtex) or tex × 10 is suitable for fine yarns and fibers; millitex (mtex) or tex × 1000 is suitable for fibers; while kilotex (ktex) or tex/1000 is often used for ropes, cords, rovings, tops, and slivers.

Examples of Table 1 use:

- 1) The English worsted count equivalent to a cotton count of 10 is 1.5 times 10, or 15 English worsted count.
- 2) The cotton count equivalent to 30 tex is 590.54 divided by 30, or 19.7 cotton count.

D 123 Terminology Relating to Textiles<sup>2</sup>

D 861 Practice for Use of the Tex System to Designate Linear Density of Fibers, Yarn Intermediates, and Yarns<sup>2</sup>

D 3888 Terminology Related to Open-End Spinning<sup>3</sup>

D 3990 Terminology Relating to Fabric Defects<sup>3</sup>

D 4849 Terminology Relating to Fibers and Yarns<sup>3</sup>

SI 10 Standard for Use of the International System of Units (SI): The Modern Metric System<sup>3</sup>

2.2 ISO Standard:

ISO 2947, Textiles—Integrated Conversion Table for Replacing Traditional Yarn Numbers by Rounded Numbers in the Tex System<sup>4</sup>

2.3 NIST Standard:

NBS-M-121—January, 1936<sup>5</sup>

### 3. Terminology

#### 3.1 Definitions:

3.1.1 *American grain count*—a direct yarn numbering system for expressing linear density, equal

3.1 Refer to the mass in grains per 120-yd Terminology D 4849 for definition of sliver or roving.

3.1.2 *cotton count, n*—an indirect yarn numbering system generally the following terms used in this standard: American graincount; cotton system equal to the number of 840-yd lengths of yarn per pound.

3.1.3 *cut, count; cut, n*—*in asbestos and glass yarns*, the number of 100-yd lengths of yarn per pound; an indirect yarn numbering system.

3.1.4 *cut, n*—*in wool yarns*, the number of 300-yd lengths of yarn per pound; an indirect yarn numbering system.

3.1.5 *denier, n*—the unit of linear density, equal to the mass yarns, cut, *in grams of 9000 m of fiber, yarn, or other textile strand that is used in a wool yarns*; denier; direct yarn numbering system. (See also systems; grain, **linear density**).

3.1.6 *directin yarn numbering system, spinning; grain, n*—a system that expresses the linear density of yarn in mass per unit length.

3.1.6.1 *Discussion*—The preferred units of measurements for the direct yarnin measuring system are grams and meters. Tex (weight in grams for 1000 metres) and Denier (weight in grams for 9000 metres) are recommended to show linear density in the direct numbering system. These can be calculated by dividing the mass of a yarn by its length. Conversion factors to convert

<sup>2</sup> Annual Book of ASTM Standards, Vol 07.01.

<sup>3</sup> Excerpts from SI 10, Standard for Use of the International System of Units (SI): The Modern Metric System, can be found in the Annual Book of ASTM Standards, Vols 07.01 and 07.02. The standard is available as a separate publication and appears in its entirety in Vol 14.02.

<sup>4</sup> American National Standards Institute, 11 West 42nd Street, 13th Floor, New York, NY 10036.

<sup>5</sup> Available from National Institute of Standards and Technology, Gaithersburg, MD 20899.

~~between direct and~~ indirect numbering systems can be found in Standard Tables D 2260. ~~—————~~ **D 1059, D 1907, D 2260**

3.1.7 *grain, n*—*in yarn spinning*, a direct yarn numbering system sometimes used for expressing system; linear density in which the yarn number is equal to the mass in grains of 120 yd of sliver, top, or roving.

3.1.8 *grain, density; lea, n*—*in measuring mass*, 1/7000 lb avoirdupois.

3.1.9 *grex, n*—an obsolete direct numbering system for fiber yarn or other textile strand equal to the the mass in grams per 10 000 m.

3.1.10 *indirect yarn numbering system, n*—a system that expresses the linear density of yarn in length per unit mass.

3.1.10.1 *Discussion*—The preferred units of measurements for the indirect yarn measuring system are yards and pounds. Cotton count (number of 840 yard lengths per pound), worsted count (number of 560 yard lengths per pound); *in linen yarns*; metric count (number of 1000 metre lengths per kilogram), woolen run (number of 1600 yard lengths per pound) and number of yards per pound are commonly used in the indirect numbering system. These can be calculated by dividing the number of specified lengths of a yarn by its unit of mass. (See also *cotton count; metric count; worsted count; cut, hank, lea, run, and tupp*).

3.1.11 *linear density, n*—*for fiber and yarn* mass per unit length.

3.1.12 *linen lea, n*—the number of 300-yd lengths of yarn per pound; an indirect yarn numbering system.

3.1.13 *metric count, n*—an indirect yarn numbering system for sliver roving, and yarn, equal to in the number of kilometers per kilogram (1000 m/kg).

3.1.14 *run, n*—*in the American american woolen system*, the number of 1600-yd lengths of yarn per pound; an indirect yarn numbering system generally used for yarns spun on the woolen system.

3.1.15 *tex, n*—the unit of linear density, equal to the mass in grams of 1000 meters of fiber, yarn, or other textile strand, that is used in a direct yarn numbering system. (See also **linear density and direct yarn numbering system**).

3.1.16 *tupp, n*—an obsolete indirect yarn numbering system equal to the number of 1000-yd lengths per pound.

3.1.17 *worsted count, n*—an indirect yarn numbering system in the worsted system equal to the number of 560-yd lengths per pound. (Syn. English; *tex*; worsted count. Compare **woolen run**).

3.1.18 *yarn number, n*—a measure of the linear density of a count; yarn expressed as “mass per unit length” or “length per unit mass,” depending upon the yarn numbering system used. (Syn. yarn count.) (See *yarn numbering system*.)

3.1.19 *yarn numbering system, n*—a system that expresses the size of a yarn as a relationship between its length number; and associated mass. (See also *direct yarn numbering system* and *indirect yarn numbering system*.)

3.1.20 For system.

3.2 Refer to Terminology D 123 for definitions of other textile terms used in these Tables, refer to Terminologies ~~D 123D 3888D 3990D 4849~~ this standard.

#### 4. Conversion Factors for Equivalent Yarn Numbers

4.1 Calculate any equivalent value using the appropriate factor listed in Table 1.

#### 5. Use of Previously Calculated Equivalent Yarn Numbers

5.1 For a specific number in a stated system, read the equivalent in the various other systems from Table 2.

5.2 With a few exceptions, fractional traditional indirect counts have been omitted from Table 2; the rounded tex system values for most fractional traditional indirect counts can be obtained by interpolation.

#### 6. Implementation of the Tex Yarn Numbering System

6.1 In Table 2, to encourage the implementation of the tex system in the United States, rounded tex values were chosen to accommodate as many yarn numbers as possible for the traditional yarn numbering systems without encroaching on established tolerances. In addition to the rounded tex system values, the decitex (dtex) equivalents have been included because they can be used throughout most of the count range without employing decimal fractions. The choice of unit is entirely a matter to be determined by each sector of the trade; decitex, for example, is particularly suitable for fine yarns (whether spun or filament) and tex for medium and coarse yarns.

#### 7. Derivation of Data in Table 2

7.1 Tables 1 and 2 are based on the following exact equivalents:

7.1.1 1 yd = 0.9144 m.

7.1.2 1 lb = 453.592 37 g.

7.1.3 1 lb = 7000 grains.

7.2 The following conversion factors have been computed where  $y$  = yards per pound.

7.2.1 Woolen run (wr) =  $y/1600$ .

7.2.2 cotton count (cc) =  $y/840$ .

7.2.3 denier (den) =  $4\ 464\ 492/y$ .

7.2.4 Worsted count (wc) =  $y/560$ .

7.2.5 American grain count per 120 yd (gr) =  $840\ 000/y$ .

7.2.6 linen lea (lea) =  $y/300$ .

7.2.7 metric count (mc) =  $y/496.055$ .

7.2.8 tex (tex) =  $496.055/y$ .

7.2.9 For the *woolen* system, use the column and row headed *linen lea*.

7.3 The data in Table 2 was derived using the National Institute of Standards and Technology values in the NIST Circular M121, January, 1936. Based on current values, when calculating yards per pound for a specified denier, the table will understate the value by 12 yd out of 4.5 million yd or 11 m out of 4.1 million m. When calculating yards per pound for a specified tex value, the table will understate the value by 5 yd out of 0.5 million yd or 4.6 m out of 0.46 million m. Therefore, those who need more precise data for denier and tex should recalculate the data needed using the current values in Table 1.

## 8. Keywords

8.1 yarn number; yarns per pound

**TABLE 2 Equivalent Yarn Number Conversion Table**

NOTE 1—In any row with a boldface type number, the other equivalents are computed from the boldface value to the nearest four significant figures.

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems				Direct Systems				Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
1.111	4 465 000	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	0.188	1.00	0.11	1.1	-1.0
1.333		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		1.2	0.13	1.3	-2.5
1.444		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		1.3	0.14	1.4	-3.1
1.667		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		1.5	0.17	1.7	+2.0
1.889		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		1.7	0.19	1.9	+0.6
2.000	2 232 000	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		1.8	0.20	2.0	0.0
2.222		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	0.376	2.00	0.22	2.2	-1.0
2.444		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		2.2	0.24	2.4	-1.8
2.556		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		2.3	0.26	2.6	+1.7
2.778		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		2.5	0.27	2.8	+0.8
3.000		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		2.7	0.30	3.0	0.0
3.333		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		3.00	0.33	3.3	-1.0
3.556		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		3.2	0.36	3.6	+1.2
4.000		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		3.6	0.40	4.0	0.0
4.111		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		3.7	0.41	4.1	-0.3
4.444		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		4.00	0.44	4.4	-1.0
4.667		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		4.2	0.47	4.7	+0.7
5.000		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		4.5	0.50	5.0	0.0
5.555	893 000	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	0.941	5.00	0.56	5.6	+0.7
6.111		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	0.9406	5.5	0.61	6.1	-0.2
6.667		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		6.00	0.67	6.7	-0.5
7.778		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		7.00	0.78	7.8	+0.3
7.889		<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		8.00	0.89	8.9	+0.1
10.00	496 055	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	1.693	9.00	1.0	10	0
11.00	450 959	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	1.881	10.00	1.1	11	-1.0
12.22	413 379	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		11	1.2	12	-1.8
13.33	381 581	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		12	1.3	13	-2.5
15.56	310 034	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		14	1.6	16	+2.8
16.67	291 797	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>		15	1.7	17	+2.0
20.00	248 028	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	3.387	18.00	2.0	20	0
22.22	225 480	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	<i>c</i>	3.763	20.00	2.2	22	-1.0
25.56	190 790							23	2.6	26	+1.7
27.78	177 162							25	2.8	28	+0.8
30.00	165 352	196.8	295.3	103.3	551.1	333.3	5.080	27.00	3.0	30	0
31.11	160 018							28	3.1	31	-0.4
33.33	150 320	177.1	265.7	93.00	496.0	300.0	5.645	30.00	3.3	33	-1.0
35.56	141 730							32	3.5	35	-1.6
38.89	124 014							35	4.0	40	+2.8
40.00	121 191	147.6	221.4	77.51	413.4	250.0	6.774	36.00	4.0	40	0
44.44	112 740	132.9	199.3	69.75	372.0	225.0	7.527	40.00	4.4	44	-1.0
45.00	110 200	131.2	196.8	68.89	367.4	222.2	7.620	40.50	4.5	45	0
47.78	103 345							43	4.8	48	+0.5

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems					Direct Systems			Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
49.21	100 800	120.0	180.0	63.00	336.0	203.2	8.333	44.29	4.9	41	+1.6
50.00	99 211	118.1	177.2	62.01	330.7	200.0	8.466	45.00	5.0	50	0
50.04		118									-0.1
50.91	97 266	116							5.1	51	+0.2
51.35		115									+1.3
51.80	95 395	114							5.2	52	+0.4
52.22								47			-0.4
52.72	93 595	112							5.3	53	+0.5
53.68		110									-1.3
54.68	90 192	108							5.5	55	+0.6
50.91		116.0	174.0	60.90	324.8	196.4	8.621	45.82	5.1	51	
53.69		110.0	165.0	57.75	308.0	186.3	9.091	48.32	5.4	54	
55.00		107.4	161.1	56.37	300.6	290.9	9.314	49.50	5.5	55	
55.56		106.3	159.5	55.81	297.7	180.0	9.406	50.00	5.6	56	+0.8
55.71	88 581	106							5.6	56	+0.5
56.24		105									-0.4
56.78	87 027	104							5.7	57	+0.4
57.78								52			+0.4
57.89		102									+0.2
58.00	85 527								5.8	58	0
59.05	84 077	100.0	150.0	52.50	28.00	169.3	10.00	53.15	5.9	59	-0.1
60.00		98.42	147.6	51.67	275.6	166.7	10.16	54.00	6.0	60	0
60.26	82 676	98							6.0	60	-0.4
61.10		96.64	145.0	50.74	270.6	163.7	10.35	55.00	6.1	61	0
61.51		96									+0.8
62.16	80 009	95							6.2	62	-0.3
62.22								56			-0.4
62.82	78 739	94							6.3	63	+0.3
64.18	77 509	92							6.4	64	-0.3
65.00		90.85	136.3	47.70	254.4	153.8	11.01	58.50	6.5	65	0
65.61	75 160	90.00	135.0	47.25	252.0	152.4	11.11	59.06	6.6	66	+0.6
67		88.59	132.9	46.51	248.0	150.0	11.29	60.00	6.7	66.66	
67.10	74 038	88							6.7	67	-0.1
69.47	71 892	86							6.9	69	+0.7
69.47		85									+0.8
70.00	70 865	84.36	126.5	44.29	236.2	142.29	11.85	63.00	7.0	70	0
70.30		84									-0.4
72.01	69 867	82							7.1	71	-1.4
72.22	68 897	81.98	122.7	42.94	229.0	138.5	12.23	65.00	7.2	72	-0.3
73.82	67 034	80.00	120.0	42.00	224.0	135.5	12.50	66.44	7.4	74	+0.3
74.75	66 141	79							7.5	75	+0.3
75.00		78.74	118.1	41.34	220.5	133.3	12.70	67.50	7.5	75	4
75.07		78.67	118.0	41.30	220.3	133.2	12.71	67.57	7.5	75	4
75.16		78.57	117.9	41.25	220.0	133.0	12.73	67.65	7.5	75	4
75.62		78.10	117.1	41.00	218.7	132.2	12.80	68.06	7.6	76	4
75.71	65 270	78.00	117.0	40.95	218.4	132.1	12.82	68.14	7.6	76	+0.4
76.34		77.36	116.0	40.61	216.6	131.0	12.93	68.71	7.6	76	2
76.55		77.14	115.7	40.50	216.0	130.6	12.96	68.90	7.7	77	2
76.69	64 423	77.00	115.5	40.42	215.6	130.4	12.99	69.03	7.7	77	+0.4
77.78		75.93	113.9	39.86	212.6	128.6	13.17	70.00	7.8	78	+0.3
77.70		76.00	114.0	39.90	212.8	128.7	13.16	69.94	7.8	78	+0.4
78.00	63 597	75.72	113.6	39.75	212.0	128.2	13.21	70.20	7.8	78	0
78.74	62 792	75.00	112.5	39.38	210.0	127.0	13.33	70.87	7.9	79	+0.3
79.09		74.67	126.4	39.20	209.1	126.4	13.39	71.19	7.9	79	
79.50		74.29	125.8	39.00	208.0	125.8	13.46	71.53	8.0	80	
79.80	62 007	74.00	111.0	38.85	207.2	125.3	13.51	71.83	8.0	80	+0.3
80.00		73.82	125.0	38.75	206.7	125.0	13.56	72.00	8.0		80
80.53		73.33	124.2	38.50	205.3	124.2	13.64	72.48	8.0	81	

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems					Direct Systems				Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value		
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%	
80.90	61 241	73.00	109.5	38.32	204.4	123.6	13.70	72.81	8.1	81	+0.1	
81.05		72.86	123.4	38.25	204.0	123.4	13.73	72.95	8.1	81		
81.59		72.38	122.6	38.00	202.7	122.6	13.82	73.43	8.2	82		
82.02	60 495	72.00	108.0		201.6	121.9	13.89	73.82	8.2	82	0	
82.68		71.45	121.0	32.51	200.1	121.0	14.00	74.39	8.3	83		
82.68		71.43	121.0	37.50	200.0	121.0	14.00	74.41	8.3	83		
83.17		71.00	106.5	37.28	198.8	120.2	14.08	74.96	8.3	83	+1.0	
83.33	59 054	70.87	106.3	37.21	198.4	120.0	14.11	75.00	8.3	83	+0.8	
83.57		70.67	119.7	37.10	197.9	119.7	14.15	75.22	8.4	84		
83.79		70.48	119.3	37.00	197.3	119.3	14.19	75.42	8.4	84		
84.36		70.00	105.0	36.75	196.0	118.5	14.29	75.93	8.4	84	-0.4	
85.00		69.49	117.6	36.47	194.5	117.6	14.38	76.50	8.5	85		
85.17		69.33	117.4	36.40	194.1	117.4	14.42	76.66	8.5	85		
85.58	58 359	69.00	103.5	36.22	193.2	116.8	14.49	77.03	8.5	86	-0.7	
86.12		68.57	116.1	36.00	192.0	116.1	14.58	77.51	8.6	86		
86.84	57 018	68.00	102.0	35.70	190.4	115.1	14.71	78.17	8.7	87	+0.2	
87.95		67.14	100.7	35.25	188.0	113.7	14.89	79.16	8.8	88		
88.14	56 370	67.00	100.5	35.14	187.5	113.5	14.93	79.16	8.8	88	-0.1	
88.58		66.67	100.0	35.00	186.7	112.9	15.00	79.43	8.9	89		
88.88		66.44	99.66	34.88	186.0	112.5	15.05	80.00	8.9	89	+1.2	
89.48		66.00	99.00	34.68	184.8	111.8	15.15	80.53	8.9	89	+0.6	
88.90		66.43	99.64	34.88	186.0	112.5	15.05	80.02	8.9	89		
90.00	55 117	65.62	98.42	34.45	183.7	111.1	15.24	81.00	9.0	90	0	
89.86		65.72	98.57	34.50	184.0	111.3	15.22	80.88	9.0	90		
90.39		65.33	98.00	34.30	182.9	110.6	15.31	81.36	9.0	90		
90.85	54 512	65.00	97.50	34.13	182.0	110.1	15.38	81.77	9.1	91	+0.2	
91.29		64.76	92.14	34.00	181.3	109.7	15.44	82.07	9.1	91		
91.86		64.29	96.43	33.75	180.0	108.9	15.56	82.68	9.2	92		
92.27	53 919	64.00	96.00	33.6	179.2	108.4	15.63	83.05	9.2	92	-0.3	
93.74	52 772	63.00	94.50	33.08	176.4	106.7	15.87	84.37	9.4	94	+0.3	
93.95		62.86	94.28	33.00	176.0	106.4	15.91	84.56	9.4	94		
94.95		62.27	94.00	32.90	175.5	106.1	15.96	84.82	9.5	95		
95.00		62.16	93.24	32.63	174.0	105.3	16.08	85.50	9.5	95		
95.23	52 216	62.01	93.02	32.56	173.6	105.0	16.31	85.71	9.5	95	-0.3	
95.25		62.00	93.00	32.55	173.6	105.2	16.73	85.73	9.8	95		
96.13		61.43	92.14	32.25	172.0	104.0	16.28	86.53	9.6	96		
96.28		61.33	92.00	32.20	171.7	103.9	16.30	86.66	9.6	96		
96.81	51 140	61.00	91.50	32.02	170.8	103.3	16.34	87.14	9.7	97	+0.2	
96.88		60.95	91.43	32.00	170.7	103.2	16.41	87.20	9.7	97		
98.41		60.00	90.00	31.50	168.0	101.6	16.67	88.57	9.8	98	+1.6	
100.0	49 606	59.05	88.57	31.00	165.3	100.0	16.94	90.00	10.0	100	0	
100.1		59.00	88.50	30.98	165.2	99.94	16.95	90.07	10.0	100	-0.1	
100.4		58.67	88.00	30.80	164.3	99.36	17.04	90.58	10.0	100		
100.8		58.57	87.86	30.75	164.0	99.20	17.07	90.72	10.1	101		
101.8	48 633	58.00	87.00	30.45	162.4	98.23	17.24	91.62	10.2	102	+0.2	
103.0		57.33	86.00	30.10	160.5	97.10	17.44	92.68	10.3	103		
103.3		57.14	85.71	30.00	160.0	96.78	17.50	92.99	10.3	103		
103.6		57.00	85.50	29.92	159.6	96.52	17.54	93.23	10.4	104	+1.3	
105.0	47 243	56.24	84.36	29.52	157.5	95.23	17.78	94.51	10.5	105	0	
105.4		56.00	84.00	29.40	156.8	94.84	17.86	94.89	10.5	105	-0.4	
106.0		55.72	83.57	29.25	156.0	98.36	17.95	95.38	10.6	106		
106.9		55.24	82.86	29.00	154.7	93.55	18.10	96.20	10.7	107		
107.4	45 931	55.00	82.50	28.88	154.0	93.17	18.18	96.63	10.7	107	+0.6	
108.0		54.67	82.00	28.70	153.1	92.59	18.29	92.20	10.8	108		
108.6		54.29	81.43	28.50	152.0	91.53	18.42	97.87	10.9	109		
109.3		54.00	81.00	28.35	151.2	91.46	18.52	98.41	10.9	109	+0.5	
110.0	45 096	53.69	80.54	28.19	105.3	90.92	18.63	99.00	11.0	110	0	

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems				Direct Systems				Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
110.7		53.33	80	28.00	149.3	90.33	18.75	99.63	11.1	111	-0.6
111.1		53.14	79.71	27.90	148.8	90.00	18.81	100.00	11.1	111	-1.0
111.4	44 520	53.00	79.50	27.82	148.4	89.75	18.87	100.3			+0.5
111.7	44 400	52.86	79.28	22.75	146.0	89.52	18.92	100.65			
112.1	44 291		79						11.2	112	-0.1
113.6	43 680	52.00	78.00	27.30	145.6	88.07	19.23	102.2			+1.2
114.8	43 200	51.43	77.14	27.00	144.0	87.10	19.44	103.3			
115.0	43 130	51.35	77.02	26.96	143.8	86.95	19.48	103.5	11.5	115	0
115.8	42 840	51.00	76.50	26.78	142.8	86.39	19.61	104.2			+1.0
116.6	42 560	50.67	76.00	26.60	141.9	85.81	19.74	104.9			+0.3
117.0	42 398								11.7	117	0
118.1	42 000	50.00	75.00	26.25	140.0	84.68	20.00	106.3			+1.6
119.2	41 600	49.52	74.28	26.00	138.7	83.88	20.19	107.3			+0.1
119.7	41 440	49.33	74.00	25.90	138.1	83.56	20.27	107.7			+0.3
120.0	41 340	49.22	73.82	25.84	137.8	83.34	20.32	108.0	12	120	0
120.4	41 160	49.00	73.50	25.72	137.2	82.97	20.41	108.5			
120.5		49.00									-0.4
121.3	40 660		73						12.2	122	+0.6
121.6	40 800	48.57	72.86	25.50	136.0	82.26	20.59	109.4			+1.6
123.0	40 320	48.00	72.00	25.20	134.4	81.30	20.83	110.7			+0.8
124.0	40 000	47.62	71.43	25.00	133.3	80.65	21.00	111.6			+0.5
124.4								112			+0.2
124.8			71								
125.0	39 680	47.24	70.86	24.80	132.3	79.99	21.17	112.5	12.5	125	0
125.2	39 600	47.14	70.71	24.75	132.0	79.84	21.21	112.7			
125.6		47									-0.5
125.7	39 480	47.00	70.50	24.68	131.6	79.62	21.28	113.1			
126.5			70								-1.2
126.6	39 200	46.67	70.00	24.50	130.7	79.04	21.43	113.9			-1.8
127.2					130						
128.3	38 640	46.00	69.00	24.15	128.8	77.91	21.74	115.5			+1.2
128.4		46	69								+0.7
129.1	38 400	45.71	68.57	24.00	128.0	77.42	21.88	116.2			
130.0	38 160	45.43	68.14	23.85	127.2	76.93	22.01	117.0			
130.2	38 080	45.33	68.00	23.80	126.9	76.78	22.06	117.2			
130.3	38 158		68						13	130	-0.2
131.2	37 800	45.00	67.50	23.62	126.0	76.20	22.22	118.1			-0.9
132.2			67								-1.7
133.3	37 200	44.29	66.42	23.25	124.0	75.00	22.58	120.0			
134.2	36 960	44.00	66.00	23.10	123.2	74.52	22.73	120.8			+0.6
134.8	36 800	43.81	65.71	23.00	122.7	74.20	22.83	121.3			+0.1
135.0	36 745								13.5	135	0
136.3			65								-1.0
137.3	36 120	43.00	64.50	22.57	120.4	72.82	23.26	123.6			-1.7
137.8	36 000	42.86	64.28	22.50	120.0	72.59	23.33	124.0			+1.6
138.3	35 840	42.67	64.00	22.40	119.5	72.26	23.44	124.5			
138.4			64								+1.1
138.9	35 700	42.50	63.75	22.31	119.0	71.98	23.53	125.0	14	140	+0.8
140.0	35 430	42.18	63.27	22.14	118.1	71.42	23.71	126.0			
140.6	35 280	42.00	63.00	22.05	117.6	71.13	23.81	126.5			-0.4
140.9	35 200	41.90	62.86	22.00	117.3	70.97	23.86	126.8			-0.6
142.6	34 800	41.43	62.14	21.75	116.0	70.17	24.14	128.3			
142.9	34 720	41.33	62.00	21.70	115.7	70.00	24.19	128.6			+1.4
144.0	34 440	41.00	61.50	21.52	114.8	69.44	24.39	129.6			+0.7
145.0	34 211								14.5	145	0
145.2			61								-0.1
147.6	33 600	40.00	60.00	21.00	112.0	67.74	25.00	132.8			-1.8
150.0	33 070	39.33	59.06	20.65	110.2	66.69	25.40	135.0			0

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems					Direct Systems			Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
150.1			59								-0.1
150.3	33 070				110				15	150	-0.2
151.3	32 760	39.00	58.50	20.48	109.2	66.05	25.64	136.2			
151.4		39									-0.9
152.7	32 480	38.67	58.00	20.30	108.3	65.49	25.86	137.4			+1.5
153.1	32 400	38.57	57.86	20.25	108.0	65.33	25.93	137.8			
155.0	32 000	38.09	57.14	20.00	106.7	64.52	26.25	139.5	15.5	155	0
155.3	31 920	38.00	57.00	19.95	106.4	64.36	26.32	139.8			
155.4		38	57								-0.3
158.1	31 360	37.33	56.00	19.60	104.5	63.23	26.78	142.3			
158.2			56								+1.1
159.0	31 200	37.14	55.71	19.50	104.0	62.91	26.92	143.1			
159.6	31 080	37.00	55.55	19.42	103.6	62.66	27.03	143.6	16	160	+0.3
160.0	31 000	36.91	55.36	19.38	103.3	62.49	27.10	144.0			
161.1			55					145			-0.7
163.1	30 400	36.19	54.28	19.00	101.3	61.29	27.63	146.8			
163.2				19							
164.0	30 240	36.00	54.00	18.90	100.8	60.97	27.78	147.6			+1.1
165.0	30 064								16.5	165	+0.6
165.3	30 000	35.72	53.57	18.75	100.0	60.49	28.00	148.8			0
165.4					100						-0.3
166.7	29 760	35.43	53.14	18.60	99.20	60.00	28.23	150.0			+0.2
167.0	29 704								16.7	167	0
167.1			53								-0.1
168.7	29 400	35.00	52.50	18.38	98.00	59.28	28.57	151.8			+0.8
170.0	29 180	34.74	52.11	18.24	97.27	58.82	28.79	153.0			
170.3	29 120	34.67	52.00	18.20	97.07	58.70	28.85	153.3	17	170	-0.2
172.2	28 800	34.29	51.43	18.00	96.00	58.06	29.17	155.0			-1.3
173.3		34	51								+0.7
173.7	28 560	34.00	51.00	17.85	95.20	57.57	29.41	156.3			
175.0	28 346								17.5	175	0
175.9	28 200	33.57	50.36	17.63	94.00	56.85	29.79	158.3			
177.2	28 000	33.33	50.00	17.50	93.33	56.45	30.00	159.5			-1.3
178.9	27 720	33.00	49.50	17.33	92.40	55.88	30.30	161.1			+0.6
179.7	27 600	32.86	49.29	17.25	92.00	55.64	30.43	161.8			
180.0	27 560	32.81	49.21	17.22	91.87	55.56	30.48	162.0	18	180	-0.5
182.4	27 200	32.38	48.57	17.00	90.67	54.83	30.88	164.1			-1.3
183.7	27 000	32.14	48.21	16.88	90.00	54.43	31.11	165.4			-2.1
184.5	26 880	32.00	48.00	16.80	89.60	54.19	31.25	166.1	18.5	185	+0.3
187.9	26 400	31.43	47.14	16.50	88.00	53.22	31.82	169.1			
188.5			47								+0.8
188.9								170			+0.6
190.0	26 110	31.08	46.62	16.32	87.03	52.64	32.17	171.0	19	190	0
190.5	26 040	31.00	46.50	16.28	86.80	52.49	32.26	171.5			-0.3
192.3	25 800	30.71	46.07	16.13	86.00	52.01	32.56	173.0			
192.6	25 760	30.67	46.00	16.10	85.87	51.93	32.61	173.3			-1.4
193.8	25 600	30.48	45.71	16.00	85.33	51.61	32.81	174.4			-2.0
196.8	25 200	30.00	45.00	15.75	84.00	50.80	33.33	177.2			+1.6
200.0	24 800	29.52	44.29	15.50	82.67	50.00	33.87	180.0	20	200	0
201.3	24 640	29.33	44.00	15.40	82.13	49.67	34.09	181.2			-0.6
201.6	24 600	29.29	43.93	15.38	82.00	49.59	34.15	181.5			
203.6	24 360	29.00	43.50	15.23	81.20	49.11	34.48	183.3			+0.7
204.1	24 300	28.93	43.39	15.19	81.00	48.99	34.57	183.7			
205.0	24 198								20.5	205	0
206.0	24 080	28.67	43.00	15.05	80.27	48.54	34.88	185.4			-0.5
206.7	24 000	28.57	42.86	15.00	80.00	48.38	35.00	186.0			+1.6
209.3	23 700	28.21	42.32	14.81	79.00	47.78	35.44	188.4			



**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems					Direct Systems			Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
210.0	23 620	28.12	42.18	14.76	78.73	47.62	35.56	189.0	21	210	0
210.9	23 520	28.00	42.00	14.70	78.40	47.41	35.71	189.8			-0.4
212.0	23 400	27.86	41.79	14.63	78.00	47.17	35.90	190.8			
214.7	23 100	27.50	41.25	14.44	77.00	46.57	36.36	193.3			
216.0	22 960	27.33	41.00	14.35	76.53	46.29	36.59	194.5	21.5	215	-0.5
217.6	22 800	27.14	40.71	14.25	76.00	45.96	36.84	195.8			
218.7	22 680	27.00	40.50	14.18	75.60	45.72	37.04	196.9			+0.6
220.0	22 550	26.85	40.27	14.09	75.17	45.46	37.25	198.0			
220.5	22 500	26.79	40.18	14.06	75.00	45.36	37.33	198.4			
221.4	22 400	26.67	40.00	14.00	74.67	45.16	37.50	199.3			
221.5	22 548		40	14					22	220	-0.7
222.2	22 320	26.57	39.86	13.95	74.40	45.00	37.63	200.0			-1.0
223.4	22 200	26.43	39.64	13.88	74.00	44.75	37.84	201.1			
226.5	21 900	26.07	39.11	13.69	73.00	44.15	38.36	203.9			
227.1	21 840	26.00	39.00	13.65	72.80	44.03	38.46	204.4	22.5	225	-0.9
229.6	21 600	25.71	38.57	13.50	72.00	43.54	38.89	206.7			
230.0	21 570	25.68	38.52	13.48	71.90	43.48	38.94	207.0			
232.9	21 300	25.36	38.04	13.31	71.00	42.94	39.44	209.6			
233.1	21 280	25.33	38.00	13.30	70.93	42.90	39.47	209.8			+0.8
233.3	21 109							210	23.5	235	+0.7
236.2	21 000	25.00	37.50	13.13	70.00	42.33	40.00	212.6			-0.5
238.5	20 800	24.76	37.14	13.00	69.33	41.93	40.38	214.7			+0.6
239.4	20 720	24.67	37.00	12.95	69.07	41.77	40.54	215.5			+0.3
239.6	20 700	24.64	36.96	12.94	69.00	41.73	40.58	215.7			
240.0	20 670	24.61	36.91	12.92	68.90	41.67	40.64	216.0	24	240	0
243.2	20 400	24.29	36.43	12.75	68.00	41.12	41.18	218.9			
246.0	20 160	24.00	36.00	12.60	67.20	40.64	41.67	221.5			+1.6
246.1			36								+1.6
246.8	20 100	23.93	35.89	12.56	67.00	40.52	41.79	222.1			
250.0	19 840	23.62	35.43	12.40	66.13	40.00	42.34	225.0	25	250	0
250.5	19 800	23.57	35.36	12.38	66.00	39.91	42.42	225.5			
253.1	19 600	23.33	35.00	12.25	65.33	39.51	42.86	227.8			-1.2
254.4	19 500	23.21	34.82	12.19	65.00	39.31	43.08	229.0			
256.7	19 320	23.00	34.50	12.08	64.40	38.95	43.48	231.1			+1.3
258.3	19200	22.86	34.29	12.00	64.00	38.71	43.75	232.5			
258.4	19 079		12	12					26	260	+0.6
260.0	19 080	22.71	34.07	11.92	63.60	38.46	44.03	234.0			
260.5	19 040	22.67	34.00	11.90	63.47	38.38	44.12	234.5			-0.2
262.5	18 900	22.50	33.75	11.81	63.00	38.10	44.44	236.2			
266.7	18 600	22.14	33.21	11.63	62.00	37.50	45.16	240.0			
268.4	18 480	22.00	33.00	11.55	61.60	37.25	45.45	241.6			+0.6
269.6	18 372		11.5	11.5					27	270	+0.1
271.1	18 300	21.79	32.68	11.44	61.00	36.89	45.90	244.0			
275.6	18 000	21.43	32.14	11.25	60.00	36.29	46.67	248.0			+1.6
276.8	17 920	21.33	32.00	11.20	59.73	36.12	46.88	249.2			+1.1
277.7	17 860	21.26	31.89	11.16	59.53	36.00	47.03	250.0			
277.8	17 716							250.0	28	280	+0.8
280.0	17 720	21.10	31.64	11.08	59.07	35.72	47.40	252.0			
280.2	17 700	21.07	31.61	11.06	59.00	35.68	47.46	252.2			
281.2	17 640	21.00	31.59	11.03	58.80	35.56	47.62	253.1			-0.4
281.8	17 600	20.95	31.43	11.00	58.67	35.48	47.73	253.7			
285.1	17 400	20.71	31.07	10.88	58.00	35.08	48.28	256.6			
285.7	17 360	20.67	31.00	10.85	57.87	35.00	48.39	257.2			-2.0
290.1	17 100	20.36	30.54	10.69	57.00	34.47	49.12	261.1			
295.3	16 800	20.00	30.00	10.50	56.00	33.87	50.00	265.8	29.5	295	-0.1
300.0	16 540	19.69	29.54	10.34	55.13	33.34	50.79	269.9			
300.6	16 500	19.64	29.46	10.31	55.00	33.26	50.91	270.6			
305.4	16 240	19.33	29.00	10.15	54.13	32.74	51.72	274.9			+1.5

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems				Direct Systems				Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
306.2	16 200	19.29	28.93	10.13	54.00	32.66	51.85	275.6			
310.0	16 000	19.05	28.57	10.00	53.33	32.25	52.50	279.1	31	310	0
310.8	15 960	19.00	28.50	9.975	53.20	32.17	52.63	279.8			-0.3
312.0	15 900	18.93	28.39	9.938	53.00	32.05	52.83	280.8			
316.4	15 680	18.67	28.00	9.800	52.27	31.61	53.57	284.8			+1.1
318.0	15 600	18.57	27.86	9.750	52.00	31.45	53.85	286.2			
320.0	15 500	18.45	27.68	9.688	51.67	31.25	54.19	288.1			
322.2	15 502							290	32	320	-0.7
324.2	15 300	18.21	27.32	9.563	51.00	30.84	54.90	291.8			
326.3				9.5							+1.1
328.1	15 120	18.00	27.00	9.450	50.40	30.48	55.56	295.3			+0.6
330.7	15 000	17.86	26.79	9.375	50.00	30.24	56.00	297.7	33	330	-0.2
333.3	14 880	17.71	26.57	9.300	49.60	30.00	56.45	300.0			
337.4	14 700	17.50	26.25	9.188	49.00	29.63	57.14	303.7			
340.0	14 590	17.37	26.05	9.119	48.63	29.41	57.57	306.0			
340.7	14 560	17.33	26.00	9.100	48.53	29.35	57.69	306.7	34	340	-0.2
344.5	14 400	17.14	25.71	9.000	48.00	29.03	58.33	310.1			+1.6
347.4	14 280	17.00	25.50	8.925	47.60	28.79	58.82	312.7	35	350	+0.7
350.0	14 170	16.87	25.30	8.856	47.24	28.57	59.27	315.0			
351.8	14 100	16.79	25.18	8.813	47.00	28.42	59.57	316.7			
354.3	14 000	16.67	25.00	8.750	46.47	28.22	60.00	318.9			-1.2
359.5	13 800	16.43	24.64	8.625	46.00	27.82	60.87	323.5			
360.0	13 780	16.41	24.61	8.612	45.93	27.78	60.96	324.0			
364.7	13 779			8.5					36	360	-1.3
367.4	13 500	16.07	24.11	8.438	45.00	27.21	62.22	330.7			
369.1	13 440	16.00	24.00	8.400	44.80	27.09	62.50	332.2	37	370	+0.2
375.8	13 200	15.71	23.57	8.250	44.00	26.62	63.64	338.2			
380.0	13 050	15.54	23.30	8.156	43.50	26.31	64.37	342.1			
384.5	12 900	15.36	23.04	8.063	43.00	26.01	65.12	346.1			
385.1	12 880	15.33	23.00	8.050	42.93	25.96	65.22	346.7	38.5	385	0
387.5	12 800	15.24	22.86	8.000	42.67	25.80	65.63	348.8			-0.6
388.8	12 760	15.19	22.79	7.975	42.53	25.72	65.83	350.0			
393.7	12 600	15.00	22.50	7.875	42.00	25.40	66.67	354.4			+1.6
400.0	12 400	14.76	22.14	7.750	41.33	25.00	67.74	360.0	40	400	0
402.6	12 320	14.67	22.00	7.700	41.07	24.84	68.18	362.4			-0.7
403.3	12 300	14.64	21.96	7.688	41.00	24.80	68.29	363.0			
413.4	12 000	14.29	21.43	7.500	40.00	24.19	70.00	372.1			+1.6
420.0	11 810	14.06	21.09	7.381	39.37	23.81	71.13	378.1	42	420	0
421.8	11 760	14.00	21.00	7.350	39.20	23.71	71.43	379.7			-0.4
424.0	11 700	13.93	20.89	7.313	39.00	23.59	71.79	381.6			
435.1	11 400	13.57	20.36	7.125	38.00	22.98	73.68	391.7			
440.0	11 270	13.42	20.12	7.044	37.57	22.72	74.53	396.2			
442.9	11 200	13.33	20.00	7.000	37.33	22.58	75.00	398.7		440	-0.7
444.4	11 160	13.29	19.93	6.975	37.20	22.50	75.27	400.0			
446.9	11 100	13.21	19.82	6.938	37.00	22.38	75.68	402.2			
450.0	11 020	13.12	19.68	6.890	36.74	22.22	76.20	405.0			
454.2	11 023	13							45	450	-0.9
454.3	10 920	13.00	19.50	6.825	36.40	22.01	76.92	408.9			
459.3	10 800	12.86	19.29	6.750	36.00	21.77	77.78	413.4			
460.0	10 780	12.83	19.25	6.738	35.93	21.73	77.92	414.2			
466.2	10 640	12.67	19.00	6.650	35.47	21.45	78.95	419.6			+0.8
466.7								420			+0.7
470.0	10 554								47	470	0
472.4	10 500	12.50	18.75	6.563	35.00	21.17	80.00	425.2			+1.6
477.0				6.5							+0.6
480.0	10 330	12.30	18.45	6.456	34.43	20.82	81.32	432.2	48	480	0
486.3	10 200	12.14	18.21	6.375	34.00	20.56	82.35	437.7			
492.1	10 080	12.00	18.00	6.300	33.60	20.32	83.33	442.9			+1.6

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems					Direct Systems			Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
500.0	9 921	11.81	17.72	6.201	33.07	20.00	84.67	450.0		500	0
501.1	9 900	11.79	17.68	6.188	33.00	19.96	84.85	451.0			
516.7	9 600	11.43	17.14	6.000	32.00	19.35	87.50	465.1			+0.6
520.0	9 539	11.36	17.03	5.962	31.80	19.23	88.06	468.1	5	520	0
521.1	9 520	11.33	17.00	5.950	31.73	19.19	88.24	469.0			-0.2
522.2								470			-0.4
533.4	9 300	11.07	16.61	5.813	31.00	18.75	90.32	480.1			
536.8	9 360	11							53	530	-1.3
536.9	9 240	11.00	16.50	5.775	30.80	18.63	90.91	483.2			
550.0	9 019	10.74	16.11	5.637	30.06	18.18	93.13	495.0			
551.2	9 000	10.71	16.07	5.625	30.00	18.14	93.33	496.1			+1.6
553.6	8 960	10.67	16.00	5.600	29.87	18.06	93.75	498.3	56	560	+1.2
555.5	8 929	10.63	15.91	5.581	29.76	18.00	94.08	500.0			
560.0	8 858	10.55	15.82	5.536	29.53	17.86	94.83	504.0			
563.7				5.5							-0.7
570.2	8 700	10.36	15.54	5.438	29.00	17.54	96.55	513.2			
577.8	8 553							520	58	580	+0.4
590.5	8 400	10.00	15.00	5.250	28.00	16.93	100.0	531.5		590	-0.1
600.0	8 268	9.843	14.76	5.168	27.56	16.67	101.6	540.0			
611.1	8 117	9.663	14.49	5.073	27.06	16.36	103.5	550.0			
612.4	8 100	9.643	14.46	5.063	27.00	16.33	103.7	551.2			
620.1	8 000	9.524	14.29	5.000	26.67	16.13	105.0	558.1			+1.6
630.0	7 874								63	630	0
632.7	7 840	9.334	14.00	4.900	26.13	15.80	107.1	569.5			-0.4
636.0	7 800	9.286	13.93	4.875	26.00	15.72	107.7	572.4			
640.0	7 751	9.228	13.84	4.844	25.84	15.63	108.4	576.0			
644.4	7 751							580	64	640	-0.7
650.0	7 632	9.085	13.63	4.770	25.44	15.38	110.1	585.0			
656.1		9									+0.6
656.2	7 560	9.000	13.50	4.725	25.20	15.24	111.1	590.6			
661.4	7 500	8.929	13.39	4.688	25.00	15.12	112.0	595.3	66	660	-0.2
666.7	7 440	8.857	13.29	4.650	24.80	15.00	112.9	600.0			
680.0	7 295	8.685	13.03	4.559	24.32	14.71	115.1	612.0	68	680	0
681.3	7 280	8.667	13.00	4.550	24.27	14.68	115.4	613.3			
681.4			13								-0.2
689.0	7 200	8.572	12.86	4.500	24.00	14.51	116.7	620.1			-1.3
700.0	7 086	8.432	12.65	4.429	23.62	14.29	118.5	630.0			
718.9	6 900	8.214	12.32	4.313	23.00	13.91	121.7	647.1			
720.0	6 890	8.203	12.30	4.306	22.97	13.89	121.9	648.0			
722.2	6 869	8.178	12.27	4.293	22.90	13.85	122.3	650.0	72	720	-0.3
738.1		8									+0.2
738.2	6 720	8.000	12.00	4.200	22.40	13.55	125.0	664.4			+0.2
740.0	6 703								74	740	0
750.0	6 614	7.874	11.81	4.134	22.05	13.33	127.0	675.0			
751.6	6 600	7.857	11.89	4.125	22.00	13.30	127.3	676.5	76	760	+1.1
760.0	6 527	7.770	11.66	4.079	21.76	13.16	128.7	684.0			
775.1	6 400	7.619	11.43	4.000	21.33	12.90	131.3	697.6	77	770	-0.7
777.8	6 378	7.593	11.39	3.986	21.26	12.86	131.7	700.0			
787.4	6 300	7.500	11.25	3.938	21.00	12.70	133.3	708.7			
800.0	6 201	7.382	11.07	3.876	20.67	12.50	135.5	720.0	80	800	0
805.3	6 160	7.333	11.00	3.850	20.53	12.42	136.4	724.8			-0.7
826.8	6 000	7.143	10.71	3.750	20.00	12.10	140.0	744.1			+1.6
833.3	5 953	7.086	10.63	3.720	19.84	12.00	141.1	750.0			
840.0	5 905	7.030	10.54	3.691	19.68	11.90	142.3	756.1	84	840	0
843.6	5 880	7.000	10.50	3.675	19.60	11.85	142.8	759.3			-0.4
850.0	5 836	6.948	10.42	3.647	19.45	11.76	143.9	765.0			
870.3	5 700	6.786	10.18	3.562	19.00	11.49	147.4	783.2			
880.0	5 637	6.711	10.07	3.523	18.79	11.36	149.0	792.1			

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems				Direct Systems				Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value	
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%
885.8			10	3.5							+0.5
885.9	5 600	6.667	10.00	3.500	18.67	11.29	150.0	797.2			
888.9	5 580	6.644	9.965	3.488	18.60	11.25	150.5	800.0			+0.1
890.0	5 574								89	890	0
900.0	5 512	6.562	9.842	3.445	18.37	11.11	152.4	810.0			
909.1	5 456	6.496	9.744	3.410	18.19	11.00	154.0	818.2			
918.6	5 400	6.428	9.643	3.375	18.00	10.88	155.6	826.8	92	920	+0.2
920.0	5 392	6.419	9.628	3.370	17.97	10.87	155.8	828.0			
933.3	5 277							840	94	940	+0.7
944.4	5 252	6.253	9.379	3.283	17.51	10.59	159.9	850.0			
960.0	5 167	6.151	9.227	3.229	17.22	10.42	162.6	864.1			
972.6	5 100	6.071	9.107	3.188	17.00	10.28	164.7	875.4			
984.2	5 040	6.000	9.000	3.150	16.80	10.16	166.7	885.8	100	1 000	+1.6
1 000	4 960	5.905	8.858	3.100	16.54	10.00	169.3	900.0			
1 033	4 800	5.714	8.571	3.000	16.00	9.676	175.0	930.1	105	1 050	+1.6
1 056	4 699	5.594	8.392	2.937	15.67	9.474	178.7	950.0			
1 102	4 500	5.357	8.036	2.812	15.00	9.072	186.7	992.1			
1 107	4 480	5.333	8.000	2.800	14.93	9.031	187.5	996.6			-0.6
1 100	4 510								110	1 100	0
1 111	4 464	5.315	7.972	2.790	14.88	9.000	188.2	1 000			-1.0
1 181	4 200	5.000	7.500	2.625	14.00	8.467	200.0	1 063			+1.6
1 200	4 134	4.921	7.382	2.584	13.78	8.335	203.2	1 080	120	1 200	0
1 210								1 100			-0.8
1 222	4 059	4.832	7.248	2.537	13.53	8.182	207.0	1 100			
1 240				2.5							+0.8
1 250	3 968	4.724	7.086	2.480	13.23	8.000	211.7	1 125	125	1250	0
1 265	3 920	4.667	7.000	2.450	13.07	7.902	214.3	1 139			-1.2
1 333	3 720	4.429	6.644	2.325	12.40	7.500	225.8	1 200			
1 378	3 600	4.286	6.428	2.250	12.00	7.257	233.3	1 240			+1.6
1 400	3 543							1 260	140	1 400	0
1 428	3 472	4.134	6.201	2.170	11.57	7.000	242.0	1 286			
1 430								1 300			+1.4
1 444	3 434	4.089	6.132	2.146	11.45	6.923	244.6	1 300			
1 450	3 421								145	1 450	0
1 476	3 360	4.000	6.000	2.100	11.20	6.773	250.0	1 329			-1.8
1 503	3 300	3.929	5.893	2.062	11.00	6.652	254.5	1 353			
1 550	3 200	3.810	5.714	2.000	10.67	6.451	262.5	1 395	160	1 600	+3.2
1 556	3 189	3.796	5.693	1.993	10.63	6.428	263.4	1 400			
1 654	3 000	3.571	5.357	1.875	10.00	6.048	280.0	1 488	165	1 650	-0.3
1 667	2 976	3.543	5.315	1.860	9.921	6.000	282.2	1 500			
1 772	2 800	3.333	5.000	1.750	9.333	5.644	300.0	1 594	175	1 750	-1.2
1 778	2 790	3.322	4.983	1.744	9.301	5.625	301.0	1 600			
1 833	2 696							1 650	184	1 840	+0.4
1 837	2 700	3.214	4.821	1.688	9.000	5.443	311.1	1 654			
1 889	2 626	3.126	4.690	1.641	8.754	5.294	319.8	1 700			
1 968	2 520	3.000	4.500	1.575	8.400	5.080	333.3	1 772	200	2 000	+1.6
2 000	2 480	2.953	4.429	1.550	8.268	5.000	338.7	1 800			
2 067	2 400	2.857	4.286	1.500	8.000	4.838	350.0	1 860	210	2 100	+1.6
2 111	2 350	2.798	4.196	1.468	7.832	4.737	357.5	1 900			
2 214	2 240	2.667	4.000	1.400	7.467	4.516	375.0	1 993			
2 215			4								-0.7
2 222	2 232	2.657	3.986	1.395	7.440	4.500	376.3	2 000	220	2 200	-1.0
2 333	2 126	2.531	3.796	1.329	7.086	4.286	395.1	2 100			
2 362	2 100	2.500	3.750	1.312	7.000	4.233	400.0	2 126	240	2 400	+1.6
2 444	2 029	2.416	3.624	1.268	6.767	4.091	413.9	2 200			
2 500	1 984	2.362	3.543	1.240	6.614	4.000	423.3	2 250	250	2 500	0
2 556	1 941	2.311	3.466	1.213	6.470	3.913	432.7	2 300			
2 667	1 860	2.214	3.222	1.163	6.201	3.750	451.6	2 400			

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems					Direct Systems				Deviation <sup>B</sup>
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value		
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%	
2 756	1 800	2.143	3.214	1.125	6.000	3.629	466.7	2 480			+1.6	
2 778	1 786	2.126	3.189	1.116	5.953	3.600	470.4	2 500	280	2 800	+0.8	
2 889	1 717	2.044	3.068	1.073	5.727	3.462	489.2	2 600				
2 953	1 680	2.000	3.000	1.050	5.600	3.387	500.0	2 657			+1.6	
3 000	1 654							2 700	300	3 000	0	
3 100	1 600	1.905	2.857	1.000	5.333	2.800	525.0	2 790	310	3 100	0	
3 111	1 594	1.898	2.846	0.9963	5.313	3.214	526.8	2 800				
3 222	1 539	1.832	2.927	0.9619	5.130	3.103	545.6	2 900				
3 307	1 500	1.786	2.678	0.9375	5.000	3.024	560.0	2 976	330	3 300	-0.2	
3 333	1 488	1.771	2.657	0.9300	4.960	3.000	564.5	3 000			-1.0	
3 444	1 440	1.714	2.571	0.9000	4.800	2.903	583.3	3 100				
3 467	1 417							3 120	350	3 500	+1.0	
3 556	1 395	1.661	2.491	0.8719	4.650	2.813	602.1	3 200				
3 667	1 353	1.611	2.416	0.8457	4.510	2.727	620.9	3 300	370	3 700	+0.9	
3 778	1 313	1.563	2.345	0.8206	4.377	2.647	639.7	3 400				
3 889	1 276	1.519	2.279	0.7975	4.253	2.571	658.5	3 500				
4 000	1 240	1.476	2.214	0.7750	4.133	2.500	677.3	3 600	400	4 000	0	
4 111	1 207	1.437	2.155	0.7544	4.023	2.432	696.2	3 700				
4 134	1 200	1.429	2.143	0.7500	4.000	2.420	700.0	3 720	420	4 200	+1.6	
4 222	1 175	1.399	2.098	0.7344	3.917	2.368	715.0	3 800				
4 333	1 145	1.362	2.045	0.7156	3.817	2.308	733.8	3 900				
4 429	1 120	1.333	2.000	0.7000	3.733	2.258	750.0	3 986			-0.7	
4 444	1 116	1.329	1.993	0.6975	3.720	2.250	752.6	4 000	440	4 400	-1.0	
4 556	1 089	1.296	1.945	0.6806	3.630	2.195	771.4	4 100				
4 667	1 063	1.266	1.898	0.6644	3.543	2.143	790.2	4 200				
4 778	1 038	1.236	1.854	0.6488	3.460	2.093	809.1	4 300				
4 889	1 015	1.208	1.812	0.6344	3.383	2.045	827.0	4 400				
5 000	992.1	1.181	1.772	0.6201	3.307	2.000	846.7	4 500				
5 111	970.5	1.155	1.733	0.6066	3.235	1.957	865.5	4 600				
5 222	949.9	1.131	1.696	0.5937	3.166	1.915	884.3	4 700				
5 333	930.1	1.107	1.661	0.5813	3.100	1.875	903.1	4 800				
5 444	911.1	1.085	1.627	0.5694	3.037	1.837	921.9	4 900				
5 512					3						+1.6	
5 516	900.0	1.071	1.607	0.5625	3.000	1.814	933.3	4 960				
5 556	892.9	1.063	1.594	0.5581	2.976	1.800	940.8	5 000			+0.8	
5 600	886								560	5 600	0	
5 667	885.4	1.054	1.581	0.5534	2.952	1.765	959.6	5 100				
5 778	858.6	1.022	1.533	0.5366	2.862	1.731	978.4	5 200				
5 889	842.4	1.003	1.504	0.5265	2.808	1.698	997.2	5 300				
5 905	840.0	1.000	1.500	0.5250	2.800	1.693	1 000	5 315	590	5 900	0	
6 000	826.8	0.9843	1.476	0.5168	2.756	1.667	1 016	5 400				
6 111	811.7	0.9663	1.449	0.5073	2.706	1.636	1 035	5 500				
6 201	800			0.5					620	6 200	0	
6 222	797.2	0.9491	1.424	0.4983	2.657	1.607	1 054	5 600				
6 333	783.2	0.9324	1.399	0.4895	2.611	1.579	1 073	5 700				
6 444	769.7	0.9163	1.374	0.4811	2.566	1.552	1 092	5 800				
6 556	756.7	0.9009	1.351	0.4729	2.522	1.525	1 110	5 900				
6 667	744.1	0.8859	1.329	0.4651	2.480	1.333	1 129	6 000				
7 778	637.8	0.7593	1.139	0.3986	2.126	1.286	1 317	7 000	780	7 800	+0.3	
8 268	600.0	0.7143	1.071	0.3750	2.000	1.2095	1 400	7 440	840	8 400	+1.6	
8 858	560.0	0.6667	1.000	0.3500	1.867	1.129	1 500	7 972	880	8 800	-0.7	
8 889	558.1	0.6644	0.9966	0.3488	1.860	1.125	1 505	8 000	900	9 000	+1.2	
10 000	496.1	0.5906	0.8859	0.3101	1.654	1.000	1 693	9 000	1 000	10 000	0	
11 000	451								1 100	11 000	0	
11 110	446.5	0.5316	0.7973	0.2791	1.488	0.9000	1 882	10 000			-1.0	
13 333	372.0	0.4289	0.6642	0.2325	1.240	0.7500	2 258	12 000				
11 023					1.5						-0.2	
13 889	354							12 500	1 400	14 000	+0.8	

**TABLE 2** *Continued*

Exact Equivalent	yd/lb for Rounded Tex-Value <sup>A</sup>	Cotton Count	Indirect Systems				Direct Systems				Deviation <sup>B</sup>	
			Worsted Count	Woolen Run	Linen Woolen Cut	Metric Count	American Grain Count	Denier	Rounded Value	Rounded Value		
dtex	yd/lb	cc	wc	wr	lea	mc	gr	den	tex	dtex	%	
15 500	320.0	0.3810	0.5714	0.2000	1.067	0.6451	2 625	13 950				
15 560	318.9	0.3797	0.5695	0.1993	1.063	0.6429	2 634	14 000				
16 540	300.0	0.3571	0.5357	0.1875	1.000	0.6048	2 800	14 880				
17 780	279.0	0.3321	0.4982	0.1744	0.9300	0.5625	3 010	16 000				
19 680	252.0	0.3000	0.4500	0.1575	0.8340	0.5080	3 000	17 720				
20 000	248							18 000	2 000	20 000	0	
22 220	223.2	0.2657	0.3986	0.1395	0.7440	0.4500	3 763	20 000	2 200	22 000	-1.0	
27 778	177							25 000	2 800	28 000	+0.8	
33 000	150									3300	33 000	0
33 070					0.5							-0.2
33 333								30 000				-1.0
55 556	89							50 000	5600	56 000	+0.8	

<sup>A</sup> The tabulated values for yards per pound are exact only for the corresponding rounded tex values.

<sup>B</sup> The values of the deviations are the rounded decitex values minus the exact decitex values, expressed as a percentage of the rounded decitex value.

<sup>C</sup> Values finer than 3.000 tex apply mostly to filament yarn, therefore, yarn count equivalents are omitted.

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