



Designation: **D4029/D4029M – 10 D4029/D4029M – 16**

Standard Specification for Finished Woven Glass Fabrics¹

This standard is issued under the fixed designation D4029/D4029M; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This specification covers finished fabrics woven from “E” electrical glass fiber yarns that are intended as a reinforcing material in laminated plastics for structural use. This specification can also be applied to fabrics made of other glass types as agreed upon between the purchaser and the supplier.

1.2 This specification specifies the terminology, definitions, general requirements, and physical requirements for finished woven glass fabrics. This specification permits the application of sizing materials to the glass fiber yarn during manufacture that helps facilitate weaving. These organic materials are typically removed from the greige fabric and replaced with a finish that is compatible with the resin matrix specified in the contracting document.

NOTE 1—Sizing materials on glass fiber yarns, in most cases, are removed by various cleaning procedures as a first stage in preparing a finished fabric. When these yarn sizing materials are removed during a cleaning procedure they need not be compatible with the subsequent resin matrix.

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 non-conformance with the standard.

1.4 This specification is one of a series to provide a substitute for Military Specifications: MIL-Y-1140 Yarn, Cord, Sleeve, Cloth, and Tape-Glass; and MIL-C-9084 Cloth, Glass Finished for Resin Laminates.

1.5 Additional ASTM specifications in this series have been drafted and appear in current editions of the Annual Book of ASTM Standards. These include greige glass fabrics, glass tapes, glass sleeveings, glass cords, glass sewing threads, and finished laminates made from finished glass fabrics.

1.6 *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](#)

[D578 Specification for Glass Fiber Strands](#)

[D1059 Test Method for Yarn Number Based on Short-Length Specimens](#) (Withdrawn 2010)³

[D1423 Test Method for Twist in Yarns by Direct-Counting](#)

[D1776 Practice for Conditioning and Testing Textiles](#)

[D1777 Test Method for Thickness of Textile Materials](#)

[D2408 Test Method for Finish Content of Woven Glass Fabric, Cleaned and After-Finished With Amino-Silane-Type Finishes, for Plastic Laminates](#) (Withdrawn 1988)³

[D2409 Test Method for Finish Content of Woven Glass Fabric, Cleaned and After-Finished With Vinyl-Silane Type Finishes, for Plastic Laminates](#) (Withdrawn 1988)³

[D2410 Test Method for Finish Content of Woven Glass Fabric, Cleaned and After-Finished With Chrome Complexes, for Plastic Laminates](#) (Withdrawn 1988)³

¹ This specification is under the jurisdiction of ASTM Committee D13 on Textiles and is the direct responsibility of Subcommittee D13.18 on Glass Fiber and its Products. Current edition approved Jan. 1, 2010; Jan. 1, 2016. Published January 2016. Originally approved in 1981. Last previous edition approved in 2009 as [D4029 – 09](#); [D4029 – 10](#). DOI: [10.1520/D4029-10](#); [10.1520/D4029-16](#).

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 The last approved version of this historical standard is referenced on [www.astm.org](#).



D2660 Test Method for Finish Content of Woven Glass Fabric, Cleaned and After-Finished with Acrylic-Silane-Type Finishes, for Plastic Laminates (Withdrawn 1988)³

D3098 Test Method for Finish Content of Woven Glass Fabrics, Cleaned and After-Finished with Epoxy-Functions Silane Type Finishes for Plastic Laminates (Withdrawn 1988)³

D3773 Test Methods for Length of Woven Fabric

D3774 Test Method for Width of Textile Fabric

D3775 Test Method for Warp (End) and Filling (Pick) Count of Woven Fabrics

D3776 Test Methods for Mass Per Unit Area (Weight) of Fabric

D4963 Test Method for Ignition Loss of Glass Strands and Fabrics

D5035 Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)

D7018 Terminology Relating to Glass Fiber and Its Products

2.2 *ANSI Standard:*

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

2.3 *Military Standard and Specifications:*

MIL-Y-1140H Yarn, Cord, Sleeveing, Cloth and Tape-Glass⁵

MIL-C-9084C Cloth, Glass Finished for Resin Laminates⁵

2.4 *Textile Institute Documents:*

Textile Terms and Definitions⁶

Woven Cloth Construction⁶

3. Terminology

3.1 For all terminology relating to D13.18, Glass Fibers and Its Products, refer to Terminology D7018.

3.1.1 The following terms are relevant to this specification: atmosphere for testing textiles, continuous filament, crowfoot weave, eight-harness satin, finished, leno weave, mock leno weave, twelve-harness satin.

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

CLASSIFICATION

4. Classification

4.1 The designation of a fabric shall be by style numbers that are standard throughout the industry. Generally used style numbers are listed in numerical order in Table 1.

REQUIREMENTS

5. Material

5.1 The yarn shall be continuous filament, unless otherwise specified, free of any free alkali metal salts, such as soda or potash, and foreign particles, dirt, and other impurities.

6. Fabric Count

6.1 For fabrics listed in Table 1, the nominal fabric count shall conform to the requirements of Table 1. For fabrics not listed in Table 1, the nominal fabric count shall be agreed upon between the purchaser and the supplier. The average count of warp ends shall be within two ends of the nominal count and the average count of the filling picks shall be within two picks of the nominal count.

7. Yarn Designations

7.1 For fabrics listed in Table 1, the yarn designations shall conform to the requirements of Table 1. For fabrics not listed in Table 1, the yarn designations may be agreed upon between the purchaser and the supplier. The requirements of the individual elements of the designation are specified in Sections 8 – 12.

7.1.1 In some cases ECE 225 yarn is specified in Table 1. ECD 225 may be substituted with no significant decrease in property performance.

8. Yarn Number

8.1 For fabrics listed in Table 1, the nominal size-free yarn numbers of the yarns designated shall conform to Specification D578. For fabrics not listed in Table 1, the nominal size-free yarn number may be agreed upon between the purchaser and the supplier.

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

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, ATTN: NPODS.

⁶ Available from the Textile Institute, 10 Blackfriars St., Manchester, M3 5DR England.



TABLE 1 Physical Properties of Typical "E" Glass Finished Woven Glass Fabrics

Commercial Style Designation	Fabric Count, Warp x Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^B	Mass per Unit Area, g/m ² (oz/yd. ²)	Nominal Thickness, mm (in.) ^C	Breaking Strength, min, ^C Warp x Fill N/5 cm (lbf/in.)
		Warp	Filling				
-101	74 x 74	EC5 2.75 1 x 0	EC5 2.75 1 x 0	plain	-16.9	0.020	162 x 162
	75 x 75	EGD 1800 1/0	EGD 1800 1/0		-0.50	0.0008	19 x 19
-104	59 x 51	EC5 5.5 1 x 0	EC5 2.75 1 x 0	plain	-19	0.028	131 x 26
	60 x 52	EGD 900 1/0	EGD 1800 1/0		-0.56	0.0011	15 x 3
-105	59 x 51	EC5 5.5 1 x 0	EC5 5.5 1 x 0	plain	-24.4	0.0330	114 x 96
	60 x 52	EGD 900 1/0	EGD 900 1/0		-0.72	0.0013	13 x 11
-106	55 x 55	EC5 5.5 1 x 0	EC5 5.5 1 x 0	plain	-25	0.036	105 x 105
	56 x 56	EGD 900 1/0	EGD 900 1/0		-0.73	0.0014	12 x 12
-107	59 x 34	EC5 5.5 1 x 2	EC5 5.5 1 x 00	plain	-34	0.046	210 x 44
	60 x 35	EGD 900 1/2	EGD 900 1/		-1.01	0.0018	24 x 5
-108	59 x 46	EC5 5.5 1 x 2	EC5 5.5 1 x 2	plain	-47.5	0.061	578 x 456
	60 x 47	D900 1/2	D900 1/2		-1.40	0.0024	66 x 52
-112	39 x 38	EC5 11 1 x 2	EC5 11 1 x 2	plain	-71	0.089	350 x 306
	40 x 39	EGD 450 1/2	EGD 450 1/2		-2.10	0.0035	40 x 35
-113	59 x 63	EC5 11 1 x 2	EC5 5.5 1 x 2	plain	-83	0.086	438 x 219
	60 x 64	EGD 450 1/2	EGD 900 1/2		-2.45	0.0034	50 x 25
-116	59 x 57	EC5 11 1 x 2	EC5 11 1 x 2	plain	-105	0.102	525 x 486
	60 x 58	EGD 450 1/2	EGD 450 1/2		-3.10	0.0040	60 x 55
-118	89 x 59	EC5 11 1 x 2	EC5 11 1 x 2	crowfoot	-132	0.132	657 x 525
	90 x 60	EGD 450 1/2	EGD 450 1/2		-3.90	0.0052	75 x 60
-119	53 x 49	EC5 11 1 x 2	EC5 11 1 x 2	plain	-92	0.099	525 x 438
	54 x 50	EGD 450 1/2	EGD 450 1/2		-2.71	0.0039	60 x 50
-120	59 x 57	EC5 11 1 x 2	EC5 11 1 x 2	crowfoot	-106	0.107	525 x 482
	60 x 58	EGD 450 1/2	EGD 450 1/2		-3.14	0.0042	60 x 55
-125	35 x 33	EC5 11 2 x 2	EC5 11 2 x 2	plain	-125	0.145	525 x 482
	36 x 34	EGD 450 2/2	EGD 450 2/2		-3.70	0.0057	60 x 55
-126	33 x 31	EC5 11 3 x 2	EC5 11 3 x 2	plain	-180	0.193	701 x 482
	34 x 32	EGD 450 3/2	EGD 450 3/2		-5.30	0.0076	80 x 55
-127	41 x 31	EC5 11 3 x 2	EC5 11 3 x 2	plain	-197	0.198	701 x 482
	42 x 32	EGD 450 3/2	EGD 450 3/2		-5.80	0.0078	80 x 55
-128	41 x 31	EC7 22 1 x 3	EC7 22 1 x 3	plain	-197	0.193	701 x 482
	42 x 32	EC6 225 1/3	EC6 225 1/3		-5.80	0.0072	80 x 55
-141	31 x 21	EC7 22 3 x 2	EC7 22 3 x 2	plain	-288	0.292	1095 x 788
	32 x 21	EC6 225 3/2	EC6 225 3/2		-8.60	0.0115	125 x 90
-143	48 x 30	EC7 22 3 x 2	EC5 11 1 x 2	crowfoot	-281	0.241	2189 x 175
	49 x 30	EC6 225 3/2	EGD 450 1/2		-8.30	0.0095	250 x 20
-162	28 x 16	EC7 22 2 x 5	EC7 22 2 x 5	plain	-397	0.419	1664 x 1995
	28 x 16	EC6 225 2/5	EC6 225 2/5		-11.7	0.0165	190 x 125
-164	20 x 18	EC7 22 4 x 3	EC7 22 4 x 3	plain	-420	0.406	1664 x 1401
	20 x 18	EC6 225 4/3	EC6 225 4/3		-12.4	0.016	190 x 160
-166	59 x 57	EC5 11 1 x 2	EC5 22 1 x 0	plain	-105	0.102	420 x 488
	60 x 58	EGD 450 1/2	EGD 225 1/0		-3.10	0.0040	48 x 57
-182	59 x 55	EC7 22 2 x 2	EC7 22 2 x 2	8-H satin	-414	0.343	1576 x 1401
	60 x 56	EC6 225 2/2	EC6 225 2/2		-12.2	0.0135	180 x 160
-183	53 x 47	EC7 22 3 x 2	EC7 22 3 x 2	8-H satin	-542	0.470	2189 x 1970
	54 x 48	EC6 225 3/2	EC6 225 3/2		-16.0	0.0185	250 x 225
-184	41 x 35	EC7 22 4 x 3	EC7 22 4 x 3	8-H satin	-848	0.762	2627 x 2189
	42 x 36	EC6 225 4/3	EC6 225 4/3		-25.0	0.0300	300 x 250
-325	89 x 43	EC5 5.5 1 x 0	EC5 2.75 1 x 0	plain	-24	0.033	149 x 44
	90 x 44	EGD 900 1/0	EGD 1800 1/0		-0.70	0.0013	17 x 5
-341	30 x 48	EC5 11 1 x 2	EC7 22 3 x 2	crowfoot	-294	0.241	263 x 2189
	30 x 49	EGD 450 1/2	EC6 225 3/2		-8.68	0.0095	30 x 250
1047	92 x 92	EC6 51 1 x 0	EC6 51 1 x 0	plain	-184.4	0.147	1638 x 1638
	47 x 47	ECDE100 1/0	ECDE100 1/0		-5.44	0.0058	188 x 188
1070	59 x 34	EC5 11 1 x 0	EC5 5.5 1 x 0	plain	-35	0.043	210 x 44
	60 x 35	EGD 450 1/0	EGD 900 1/0		-1.03	0.0017	24 x 5
1080	59 x 46	EC5 11 1 x 0	EC5 11 1 x 0	plain	-47	0.058	210 x 15
	60 x 47	EGD 450 1/0	EGD 450 1/0		-1.40	0.023	24 x 18
1116	59 x 57	EC5 22 1 x 0	EC5 22 1 x 0	plain	-105	0.0864	394 x 280
	60 x 58	EGD 225 1/0	EGD 225 1/0		-3.10	0.0034	45 x 32
1125	39 x 38	EC5 11 1 x 2	EC9 33 1 x 0	plain	-88	0.104	350 x 394
	40 x 39	EGD 450 1/2	EGG 150 1/0		-2.60	0.0041	40 x 45
1165	59 x 51	EC5 11 1 x 2	EC9 33 1 x 0	plain	-122	0.112	482 x 525
	60 x 52	EGD 450 1/2	EGD 150 1/0		-3.60	0.0044	55 x 60
1280	59 x 59	EC5 11 1 x 0	EC5 11 1 x 0	plain	-52.6	0.0559	482 x 525
	60 x 60	EGD 450 1/0	EGD 450 1/0		-1.55	0.0022	210 x 210
1316	60 x 60	EC5 22 1 x 0	EC5 22 1 x 0	plain	-105.0	0.102	24 x 24
	61 x 61	EGD 225 1/0	EGD 225 1/0		-3.18	0.0040	45 x 34
1500	48 x 41	EC7 45 1 x 0	EC7 45 1 x 0	plain	-164.1	0.1499	700 x 700



TABLE 1 Continued

Commercial Style Designation	Fabric Count, Warp x Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^E	Mass per Unit Area, g/m ² (oz/yd. ²)	Nominal Thickness, ^C mm (in.)	Breaking Strength, min, ^C Warp x Fill N/5 cm (lbf/in.)
		Warp	Filling				
1510	49 x 42	ECG 110 1 x 1/0	ECG 110 1 x 1/0		-4.84	0.0059	80 x 80
	31 x 29	ECG 33 1 x 2	ECG 33 1 x 2	plain	-162	0.127	482 x 394
	32 x 29	ECG 150 1/2	ECG 150 1/2		-4.78	0.0050	55 x 45
1523	28 x 20	ECG 33 3 x 2	ECG 33 3 x 2	plain	-390	0.356	1401 x 1226
	28 x 20	ECG 150 3/2	ECG 150 3/2		-11.5	0.0140	160 x 140
1526	33 x 31	ECG 33 1 x 2	ECG 33 1 x 2	plain	-179	0.180	701 x 482
	34 x 32	ECG 150 1/2	ECG 150 1/2		-5.27	0.0071	80 x 55
1527	17 x 17	ECG 33 3 x 3	ECG 33 3 x 3	plain	-431	0.406	1576 x 1489
	17 x 17	ECG 150 3/3	ECG 150 3/3		-12.7	0.0160	180 x 170
1528	43 x 31	ECG 33 1 x 2	ECG 33 1 x 2	plain	-202	0.185	701 x 482
	44 x 32	ECG 150 1/2	ECG 150 1/2		-5.95	0.0073	80 x 55
1543	48 x 30	ECG 33 2 x 2	ECG 22 1 x 0	crowfoot	-281	0.229	2189 x 175
	49 x 30	ECG 150 2/2	ECG 225 1/0		-8.30	0.0090	250 x 20
1557	56 x 30	ECG 33 1 x 2	ECG 22 1 x 0	crowfoot	-179	0.147	1095 x 219
	57 x 30	ECG 150 1/2	ECG 225 1/0		-5.27	0.0058	125 x 25
1564	20 x 18	ECG 33 4 x 2	ECG 33 4 x 2	plain	-414	0.381	1664 x 1401
	20 x 18	ECG 150 4/2	ECG 150 4/2		-12.2	0.0150	190 x 160
1581	56 x 53	ECG 33 1 x 2	ECG 33 1 x 2	8-H satin	-290	0.254	1313 x 1138
	57 x 54	ECG 150 1/2	ECG 150 1/2		-8.55	0.010	150 x 130
1582	59 x 55	ECG 33 1 x 3	ECG 33 1 x 3	8-H satin	-464	0.394	1401 x 1313
	60 x 56	ECG 150 1/3	ECG 150 1/3		-13.7	0.0155	160 x 150
1583	53 x 47	ECG 33 2 x 2	ECG 33 2 x 2	8-H satin	-542	0.445	2189 x 1970
	54 x 48	ECG 150 2/2	ECG 150 2/2		-16.0	0.0175	250 x 225
1584	43 x 34	ECG 33 4 x 2	ECG 33 4 x 2	8-H satin	-834	0.711	2627 x 2189
	44 x 35	ECG 150 4/2	ECG 150 4/2		-24.6	0.028	300 x 250
1610	31 x 28	ECG 33 1 x 0	ECG 33 1 x 0	plain	-80	0.0914	306 x 263
	32 x 28	ECG 150 1/0	ECG 150 1/0		-2.35	0.0036	35 x 30
1643	55 x 47	ECG 33 1 x 0	ECG 33 1 x 0	crowfoot	-138	0.0127	613 x 482
	56 x 48	ECDE 150 1 x 0	ECDE 150 1/0		-4.06	0.0050	70 x 55
1652	51 x 51	ECG 33 1 x 0	ECG 33 1 x 0	plain	-136.9	0.114	1591 x 1591
	52 x 52	ECDE 150 1/0	ECDE 150 1/0		-4.04	0.0045	182 x 182
1659	20 x 10	ECG 33 1 x 0	ECG 68 1 x 0	leno	-54	0.0107	131 x 140
	20 x 10	ECG 150 1/0	ECG 75 1/0		-1.60	0.0042	15 x 16
1674	39 x 31	ECG 33 1 x 0	ECG 33 1 x 0	plain	-95	0.109	438 x 306
	40 x 32	ECG 150 1/0	ECG 150 1/0		-2.80	0.0043	50 x 35
1675	39 x 31	ECG 33 1 x 0	ECG 33 1 x 0	plain	-96	0.094	438 x 306
	40 x 32	ECDE 150 1/0	ECDE 150 1/0		-2.83	0.0037	50 x 35
1676	55 x 47	ECG 33 1 x 0	ECG 33 1 x 0	plain	-136	0.122	613 x 525
	56 x 48	ECDE 150 1/0	ECDE 150 1/0		-4.00	0.0048	70 x 60
1677	39 x 39	ECG 33 1 x 0	ECG 33 1 x 0	plain	-106	0.112	525 x 438
	40 x 40	ECDE 150 1/0	ECDE 150 1/0		-3.14	0.0044	60 x 50
1678	79 x 79	ECG 33 1 x 0	ECG 33 1 x 0	plain	-105.8	0.091	1051 x 1051
	40 x 40	ECG 150 1/0	G 150 1/0		-3.12	0.0036	120 x 120
1680	71 x 69	ECG 33 1 x 0	ECG 33 1 x 0	8-H satin	-188	0.152	832 x 701
	72 x 70	ECDE 150 1/0	ECDE 150 1/0		-5.56	0.0060	95 x 80
1681	55 x 35	ECG 33 1 x 0	ECG 33 1 x 0	plain	-122	0.0122	525 x 394
	56 x 36	ECDE 150 1/0	ECDE 150 1/0		-3.60	0.0048	60 x 45
1687	39 x 41	ECG 33 1 x 0	ECG 33 1 x 0	plain	-108.5	0.1140	578 x 525
	40 x 42	ECG 150 1/0	ECG 150 1/0		-3.20	0.0045	66 x 60
1800	16 x 14	EC13 275 1 x 0	EC13 275 1 x 0	plain	-327	0.330	1313 x 1051
	16 x 14	ECK 18 1/0	ECK 18 1/0		-9.65	0.0130	150 x 120
1874	43 x 34	EC13 275 1 x 0	EC13 275 1 x 0	8-H satin	-865	0.0681	3152 x 2758
	44 x 35	ECK 18 1/0	ECG 37 1/2		-26.08	0.0245	360 x 315
1884	43 x 34	EC13 275 1 x 0	EC13 275 1 x 0	8-H satin	-847	0.7112	2627 x 2189
	44 x 35	ECK 18 1/0	ECK 18 1/0		-25.0	0.0280	300 x 250
1887	39 x 20	EC13 275 1 x 0	EC13 275 1 x 0	mock leno	-715	0.584	311 x 163
	40 x 21	ECK 18 1/0	ECK 18 1/0		-21.10	0.0230	2723 x 1427
2112	39 x 38	EC5 22 1 x 0	EC5 22 1 x 0	plain	-71	0.079	263 x 210
	40 x 39	ECG 225 1/0	ECG 225 1/0		-2.10	0.0031	30 x 24
2113	59 x 55	EC5 22 1 x 0	EC5 11 1 x 0	plain	-81	0.0076	420 x 210
	60 x 56	ECG 225 1/0	ECG 450 1/0		-2.38	0.0030	48 x 24
2116	59 x 57	EC5 22 1 x 0	EC5 22 1 x 0	plain	-105	0.086	350 x 280
	60 x 58	ECG 225 1/0	ECG 225 1/0		-3.10	0.0034	40 x 32
2119	53 x 49	ECG 22 1 x 0	ECG 22 1 x 0	plain	-90.2	0.086	315 x 236
	54 x 50	ECG 225 1/0	ECG 225 1/0		-2.66	0.0034	36 x 27
2120	59 x 57	EC5 22 1 x 0	EC5 22 1 x 0	crowfoot	-106	0.107	525 x 482
	60 x 58	ECG 225 1/0	ECG 225 1/0		-3.12	0.0042	60 x 55
2125	39 x 38	EC5 22 1 x 0	ECG 33 1 x 0	plain	-88	0.0965	263 x 394
	40 x 39	ECG 225 1/0	ECG 150 1/0		-2.60	0.0038	30 x 45



TABLE 1 Continued

Commercial Style Designation	Fabric Count, Warp × Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^B	Mass per Unit Area, g/m ² (oz/yd. ²)	Nominal Thickness, C mm (in.)	Breaking Strength, min, ^C Warp × Fill N/5 cm (lbf/in.)
		Warp	Filling				
2165	59 × 51	EC5 22 1 × 0	EG9 33 1 × 0	plain	—123	0.122	482 × 525
	60 × 52	EGD 225 1/0	EGG 150 1/0		—3.62	0.0048	55 × 60
2218	89 × 59	EC7 22 1 × 0	EG7 22 1 × 0	crowfoot	—138	0.0127	534 × 394
	90 × 60	EGE 225 1/0	EGE 225 1/0		—4.06	0.0050	61 × 45
2225	35 × 33	EC7 22 1 × 2	EG7 22 1 × 2	plain	—127	0.323	51 × 48
	36 × 34	EGE 225 1/2	EGE 225 1/2		—3.75	0.0127	447 × 420
2238	63 × 59	EC7 22 1 × 2	EG7 22 1 × 2	crowfoot	—231	0.0452	102 × 90
	64 × 60	EGE 225 1/2	EGE 225 1/2		—6.80	0.0178	893 × 788
2313	59 × 63	EC7 22 1 × 0	EG5 11 1 × 0	plain	—80.5	0.838	50 × 24
	60 × 64	EGE 225 1/0	EGD 450 1/0		—2.38	0.0033	438 × 210
2316	60 × 60	EC7 22 1 × 0	EG7 22 1 × 0	plain	—108	0.0889	359 × 298
	61 × 61	EGE 225 1/0	EGE 225 1/0		—3.18	0.0035	41 × 34
2319	59 × 45	EC7 22 1 × 0	EG7 22 1 × 0	plain	—93.2	0.0864	350 × 228
	60 × 46	EGE 225 1/0	EGE 225 1/0		—2.75	0.0034	40 × 26
2500	16 × 16	EC10 190 1 × 0	EC10 190 1 × 0	leno	—272	0.508	876 × 858
	16 × 16	ECH 25 1/0	ECH 25 1/0		—8.01	0.0200	100 × 98
2523	28 × 20	EC10 198 1 × 0	EC10 198 1 × 0	plain	—390	0.328	1138 × 1138
	28 × 20	ECH 25 1/0	ECH 25 1/0		—11.5	0.0129	130 × 130
2532	16 × 14	EC10 198 1 × 0	EC10 198 1 × 0	plain	—230	0.246	876 × 832
	16 × 14	ECH 25 1/0	ECH 25 1/0		—6.8	0.0097	100 × 95
3070	69 × 69	EC6 17.5 1 × 0	EC6 17.5	plain	—93.6	0.078	1104 × 1104
	70 × 70	EGDE300 1/0	EGDE300 1/0		—2.76	0.0031	1103 × 1133
3313	59 × 61	EC6 17.5 1 × 0	EC6 17.5	plain	—80.5	0.084	944 × 976
	60 × 62	EGDE300 1/0	EGDE300 1/0		—2.38	0.0033	114 × 118
3700	15 × 14	EC9 134 1 × 2	EC9 134 1 × 2	plain	—311	0.312	1033 × 928
	15 × 14	EGG 37 1/2	EGG 37 1/2		—9.18	0.0123	118 × 106
3701	12 × 6	EC9 134 1 × 0	EC9 134 1 × 0	leno	—134.6	0.244	446 × 438
	12 × 6	EGG 37 1/0	EGG 37 1/0		—3.97	0.0096	51 × 50
3732	47 × 31	EC9 134 1 × 0	EC9 134 1 × 0	crowfoot	—424	0.318	1532 × 1313
	48 × 32	EGG 37 1/0	EGG 37 1/0		—12.5	0.0125	175 × 150
3733	18 × 18	EC9 134 1 × 0	EC9 134 1 × 0	plain	—190	0.198	788 × 744
	18 × 18	EGG 37 1/0	EGG 37 1/0		—5.60	0.0078	90 × 85
3734	47 × 31	ECG 134 1 × 0	ECG 134 1 × 0	crowfoot	—432	0.366	1681 × 1147
	48 × 32	EGDE 37 1/0	EGDE 37 1/0		—12.74	0.0144	192 × 131
3743	48 × 30	EC9 134 1 × 0	EG7 22 1 × 0	crowfoot	—281	0.208	2189 × 175
	49 × 30	EGG 37 1/0	EGE 225 1/0		—8.30	0.0082	250 × 20
3744	28 × 14	EC9 134 1 × 2	EC9 134 1 × 4	2-end plain	—610	0.508	1926 × 1909
	28 × 14	EGG 37 1/2	EGG 37 1/4		—18.00	0.0200	220 × 218
3745	27 × 28	EC9 134 1 × 0	EC9 134 1 × 2	2-pk. plain	—593	0.470	1751 × 1883
	27 × 28	EGG 37 1/2	EGG 37 1/2		—17.50	0.0185	200 × 215
3783	53 × 47	EC9 134 1 × 0	EC9 134 1 × 0	8-H satin	—576	0.406	1751 × 1707
	54 × 48	EGG 37 1/2	EGG 37 1/2		—16.99	0.0160	200 × 195
3784	43 × 34	EC9 134 1 × 0	EC9 134 1 × 0	8-H satin	—901	0.610	2522 × 2242
	44 × 35	EGG 37 1/2	EGG 37 1/2		—26.57	0.0240	288 × 256
3787	39 × 21	EC9 134 1 × 2	EC9 134 1 × 2	mock leno	—695	0.762	2102 × 1261
	40 × 21	EGG 37 1/2	EGG 37 1/2		—20.50	0.0300	240 × 14
3788	41 × 35	EC9 134 1 × 4	EC9 134 1 × 4	12-H satin	—1856	1.156	4282 × 3555
	42 × 36	EGG 37 1/4	EGG 37 1/4		—54.75	0.0455	489 × 406
5020	18 × 18	EC9 99 1 × 2	EC9 99 1 × 2	plain	—294	0.305	928 × 876
	18 × 18	EGG 50 1/2	EGG 50 1/2		—8.68	0.0120	106 × 100
5023	48 × 30	EC9 99 1 × 2	EC9 99 1 × 2	crowfoot	—288	0.330	1489 × 1226
	49 × 30	EGG 50 1/2	EGG 50 1/2		—8.50	0.0130	170 × 140
5027	17 × 17	EC9 99 1 × 3	EC9 99 1 × 3	plain	—417	0.419	1489 × 1401
	17 × 17	EGG 50 1/3	EGG 50 1/3		—12.30	0.0165	170 × 160
5032	16 × 14	EC9 99 1 × 2	EC9 99 1 × 2	plain	—245	0.254	893 × 753
	16 × 14	EGG 50 1/2	EGG 50 1/2		—7.23	0.0100	102 × 86
5082	59 × 55	EC9 99 1 × 0	EC9 99 1 × 0	8-H satin	—471	0.330	1471 × 1401
	60 × 56	EGG 50 1/0	EGG 50 1/0		—13.90	0.0130	168 × 160
6060	59 × 59	EC6 8.75 1 × 0	EC6 8.75 1 × 0	plain	—39.0	0.048	472 × 472
	60 × 60	EGDE600 1/0	EGDE600 1/0		—1.15	0.0019	57 × 57
7500	16 × 14	EC9 68 2 × 2	EC9 68 2 × 2	plain	—324	0.368	1313 × 1051
	16 × 14	EGG 75 2/2	EGG 75 2/2		—9.55	0.0145	150 × 120
7520	18 × 17	EC9 68 1 × 3	EC9 68 1 × 3	plain	—279	0.251	919 × 876
	18 × 17	EGG 75 1/3	EGG 75 1/3		—8.22	0.0099	105 × 100
7532	16 × 14	EC9 68 1 × 3	EC9 68 1 × 3	plain	—239	0.305	1007 × 876
	16 × 14	EGG 75 1/3	EGG 75 1/3		—7.05	0.012	115 × 100
7533	18 × 18	EC9 68 1 × 2	EC9 68 1 × 2	plain	—192	0.234	788 × 744
	18 × 18	EGG 75 1/2	EGG 75 1/2		—5.65	0.0092	90 × 85
7543	48 × 30	EC9 68 1 × 2	EG7 22 1 × 0	crowfoot	—288	0.2032	1681 × 193



TABLE 1 Continued

Commercial Style Designation	Fabric Count, Warp x Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^E	Mass per Unit Area, g/m ² (oz/yd. ²)	Nominal Thickness, ^C mm (in.)	Breaking Strength, min, ^C Warp x Fill N/5 cm (lbf/in.)
		Warp	Filling				
	49 x 30	ECG 75 1/2	EGE 225 1/0		8.50	0.0080	192 x 22
7544	28 x 14	EC9 68 2 x 2	EC9 68 2 x 4	2/1 basket	600	0.559	1664 x 1401
	28 x 14	ECG 75 2/2	ECG 75 2/4		17.7	0.0220	190 x 160
7557	56 x 29	EC9 68 1 x 0	EC7 22 1 x 0	crowfoot	184	0.140	981 x 193
	57 x 30	ECG 75 1/0	EGE 225 1/0		5.42	0.0055	112 x 22
7581	56 x 53	EC9 68 1 x 0	EC9 68 1 x 0	8-H satin	302	0.246	718 x 525
	57 x 54	ECG 75 1/0	ECG 75 1/0		8.90	0.0097	82 x 60
7583	53 x 47	EC9 68 1 x 2	EC9 68 1 x 2	8-H satin	546	0.396	1821 x 1646
	54 x 48	ECG 75 1/2	ECG 75 1/2		16.10	0.0156	208 x 188
7587	39 x 21	EC9 68 2 x 2	EC9 68 2 x 2	mock leno	678	0.800	2627 x 1489
	40 x 21	ECG 75 2/2	ECG 75 2/2		20.0	0.0315	300 x 170
7626	33 x 31	EC9 68 1 x 0	EC9 68 1 x 0	plain	176	0.157	701 x 482
	34 x 32	ECG 75 1/0	ECG 75 1/0		5.20	0.0062	80 x 55
7627	87 x 59	EC9 68 1 x 0	EC9 68 1 x 0	plain	199.0	0.165	2210 x 1499
	44 x 30	ECG 75 1/0	ECG 75 1/0		5.87	0.0065	251 x 171
7628	43 x 31	EC9 68 1 x 0	EC9 68 1 x 0	plain	202	0.173	525 x 420
	44 x 32	ECG 75 1/0	ECG 75 1/0		5.95	0.0068	60 x 48
7629	43 x 33	EC9 68 1 x 0	EC9 68 1 x 0	plain	213.0	0.0180	508 x 403
	44 x 34	ECG 75 1/0	ECG 75 1/0		6.19	0.0071	58 x 46
7635	86 x 57	EC9 68 1 x 0	EC9 100 1 x 0	plain	230.9	0.196	2184 x 2508
	44 x 29	ECG 75 1/0	ECG 50 1/0		6.81	0.0077	251 x 290
7637	43 x 22	EC9 68 1 x 0	EC9 134 1 x 0	plain	227	0.224	683 x 665
	44 x 22	ECG 75 1/0	ECG 37 1/0		6.70	0.0088	78 x 76
7641	31 x 21	EC9 68 1 x 2	EC9 68 1 x 2	plain	288	0.267	1095 x 788
	32 x 21	ECG 75 1/2	ECG 75 1/2		8.50	0.0105	125 x 90
7642	43 x 19	EC9 68 1 x 0	ET9 134 1 x 0	plain	220	0.254	657 x 350
	44 x 20	ECG 75 1/0	ETG 37 1/0		6.50	0.0100	75 x 40
7652	31 x 31	EC9 99 1 x 0	EC9 99 1/0	plain	253	0.221	1876 x 788
	32 x 32	ECG 50 1/0	ECG 50 1/0		7.45	0.0087	100 x 90
7658	43 x 31	EC9 68 1 x 0	EC9 68 1 x 0	crowfoot	202	0.175	701 x 482
	44 x 32	ECG 75 1/0	ECG 75 1/0		5.95	0.0069	80 x 55
7660	30 x 30	EC9 68 1 x 0	EC9 68 1 x 0	plain	163.0	0.0150	359 x 350
	30 x 30	ECG 75 1/0	ECG 75 1/0		4.80	0.0059	41 x 40
7664	20 x 18	EC9 68 2 x 2	EC9 68 2 x 2	plain	424	0.419	1664 x 1401
	20 x 18	ECG 75 2/2	ECG 75 2/2		12.5	0.0165	190 x 160
7743	118 x 20	EC6 68 1 x 0	EC9 33 1 x 0	8-H satin	339	0.244	2408 x 306
	120 x 20	ECDE 75 1/0	ECG 150 1/0		10.0	0.0096	275 x 35
7781	59 x 53	EC6 68 1 x 0	EC6 68 1 x 0	8-H satin	295	0.234	1313 x 1138
	57 x 54	ECDE 75 1/0	ECDE 75 1/0		8.70	0.0092	150 x 130

TABLE 1 Physical Properties of Typical "E" Glass Finished Woven Glass Fabrics

Commercial Style Designation	Fabric Count, Warp x Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^E	Mass per Unit Area, g/m ² [oz/yd. ²]	Nominal Thickness, ^C mm [in.]	Breaking Force, min, ^C Warp x Fill N/5 cm [lbf/in.]
		Warp	Filling				
101	74 x 74	EC5 2.75 1 x 0	EC5 2.75 1 x 0	plain	16.9	0.020	162 x 162
	75 x 75	ECD 1800 1/0	ECD 1800 1/0		0.50	0.0008	19 x 19
104	59 x 51	EC5 5.5 1 x 0	EC5 2.75 1 x 0	plain	19	0.028	131 x 26
	60 x 52	ECD 900 1/0	ECD 1800 1/0		0.56	0.0011	15 x 3
105	59 x 51	EC5 5.5 1 x 0	EC5 5.5 1 x 0	plain	24.4	0.0330	114 x 96
	60 x 52	ECD 900 1/0	ECD 900 1/0		0.72	0.0013	13 x 11
106	55 x 55	EC5 5.5 1 x 0	EC5 5.5 1 x 0	plain	25	0.036	105 x 105
	56 x 56	ECD 900 1/0	ECD 900 1/0		0.73	0.0014	12 x 12
107	59 x 34	EC5 5.5 1 x 2	EC5 5.5 1 x 00	plain	34	0.046	210 x 44
	60 x 35	ECD 900 1/2	ECD 900 1/		1.01	0.0018	24 x 5
108	59 x 46	EC5 5.5 1 x 2	EC5 5.5 1 x 2	plain	47.5	0.061	578 x 456
	60 x 47	D900 1/2	D900 1/2		1.40	0.0024	66 x 52
112	39 x 38	EC5 11 1 x 2	EC5 11 1 x 2	plain	71	0.089	350 x 306
	40 x 39	ECD 450 1/2	ECD 450 1/2		2.10	0.0035	40 x 35
113	59 x 63	EC5 11 1 x 2	EC5 5.5 1 x 2	plain	83	0.086	438 x 219
	60 x 64	ECD 450 1/2	ECD 900 1/2		2.45	0.0034	50 x 25
116	59 x 57	EC5 11 1 x 2	EC5 11 1 x 2	plain	105	0.102	525 x 486
	60 x 58	ECD 450 1/2	ECD 450 1/2		3.10	0.0040	60 x 55
118	89 x 59	EC5 11 1 x 2	EC5 11 1 x 2	crowfoot	132	0.132	657 x 525
	90 x 60	ECD 450 1/2	ECD 450 1/2		3.90	0.0052	75 x 60
119	53 x 49	EC5 11 1 x 2	EC5 11 1 x 2	plain	92	0.099	525 x 438



TABLE 1 Continued

Commercial Style Designation	Fabric Count, Warp x Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^B	Mass per Unit Area, g/m ² [oz/yd. ²]	Nominal Thickness, ^C mm [in.]	Breaking Force, min, ^C Warp x Fill N/5 cm [lbf/in.]
		Warp	Filling				
120	54 x 50	ECD 450 1/2	ECD 450 1/2	crowfoot	2.71	0.0039	60 x 50
	59 x 57	EC5 11 1 x 2	EC5 11 1 x 2		106	0.107	525 x 482
125	60 x 58	ECD 450 1/2	ECD 450 1/2	plain	3.14	0.0042	60 x 55
	35 x 33	EC5 11 2 x 2	EC5 11 2 x 2		125	0.145	525 x 482
126	36 x 34	ECD 450 2/2	ECD 450 2/2	plain	3.70	0.0057	60 x 55
	33 x 31	EC5 11 3 x 2	EC5 11 3 x 2		180	0.193	701 x 482
127	34 x 32	ECD 450 3/2	ECD 450 3/2	plain	5.30	0.0076	80 x 55
	41 x 31	EC5 11 3 x 2	EC5 11 3 x 2		197	0.198	701 x 482
128	42 x 32	ECD 450 3/2	ECD 450 3/2	plain	5.80	0.0078	80 x 55
	41 x 31	EC7 22 1 x 3	EC7 22 1 x 3		197	0.183	701 x 482
141	42 x 32	ECE 225 1/3	ECE 225 1/3	plain	5.80	0.0072	80 x 55
	31 x 21	EC7 22 3 x 2	EC7 22 3 x 2		288	0.292	1095 x 788
143	32 x 21	ECE 225 3/2	ECE 225 3/2	crowfoot	8.50	0.0115	125 x 90
	48 x 30	EC7 22 3 x 2	EC5 11 1 x 2		281	0.241	2189 x 175
162	49 x 30	ECE 225 3/2	ECD 450 1/2	plain	8.30	0.0095	250 x 20
	28 x 16	EC7 22 2 x 5	EC7 22 2 x 5		397	0.419	1664 x 1995
164	28 x 16	ECE 225 2/5	ECE 225 2/5	plain	11.7	0.0165	190 x 125
	20 x 18	EC7 22 4 x 3	EC7 22 4 x 3		420	0.406	1664 x 1401
166	20 x 18	ECE 225 4/3	ECE 225 4/3	plain	12.4	0.016	190 x 160
	59 x 57	EC5 11 1 x 2	EC5 22 1 x 0		105	0.102	420 x 488
182	60 x 58	ECD 450 1/2	ECD 225 1/0	8-H satin	3.10	0.0040	48 x 57
	59 x 55	EC7 22 2 x 2	EC7 22 2 x 2		414	0.343	1576 x 1401
183	60 x 56	ECE 225 2/2	ECE 225 2/2	8-H satin	12.2	0.0135	180 x 160
	53 x 47	EC7 22 3 x 2	EC7 22 3 x 2		542	0.470	2189 x 1970
184	54 x 48	ECE 225 3/2	ECE 225 3/2	8-H satin	16.0	0.0185	250 x 225
	41 x 35	EC7 22 4 x 3	EC7 22 4 x 3		848	0.762	2627 x 2189
325	42 x 36	ECE 225 4/3	ECE 225 4/3	plain	25.0	0.0300	300 x 250
	89 x 43	EC5 5.5 1 x 0	EC5 2.75 1 x 0		24	0.033	149 x 44
341	90 x 44	ECD 900 1/0	ECD 1800 1/0	crowfoot	0.70	0.0013	17 x 5
	30 x 48	EC5 11 1 x 2	EC7 22 3 x 2		294	0.241	263 x 2189
1000	30 x 49	ECD 450 1/2	ECE 225 3/2	plain	8.68	0.0095	30 x 250
	84 x 84	BC 4 1.65 1 x 0	BC 4 1.65 1 x 0		11.1	0.012	
1012	85 x 85	BC 3000 1/0	BC 3000 1/0	plain	0.33	0.00047	
	69 x 69	BC4 2.2 1 x 0	BC4 2.2 1 x 0		12.3	0.018	
1015	70 x 70	BC 2250 1/0	BC 2250 1/0	plain	0.36	0.00071	
	94 x 94	BC4 2.20 1 x 0	BC4 2.20 1 x 0		16.9	0.015	
1017	96 x 96	BC 2259 1/0	BC 2259 1/0	plain	0.50	0.00059	
	94 x 94	BC 4 1.65 1 x 0	BC 4 1.65 1 x 0		12.3	0.013	
1020	95 x 95	BC 3000 1/0	BC 3000 1/0	plain	0.36	0.00053	
	54 x 54	EC4.5 2.76 1 x 0	EC4.5 2.76 1 x 0		12.2	0.025	
1024	55 x 55	ECC 1800 1/0	ECC 1800 1/0	plain	0.36	0.00098	
	90 x 90	BC4 3.31 1 x 0	BC4 3.31 1 x 0		23.8	0.020	
1027	91 x 91	BC 1500 1/0	BC 1500 1/0	plain	0.70	0.00079	
	74 x 74	BC4 3.31 1 x 0	BC4 3.31 1 x 0		19.9	0.019	
1030	75 x 75	BC 1500 1/0	BC 1500 1/0	plain	0.59	0.00075	
	90 x 90	EC4.5 4.1 1 x 0	EC4.5 4.1 1 x 0		29.7	0.026	
1035	91 x 91	EC 1200 1/0	EC 1200 1/0	plain	0.88	0.00102	
	65 x 67	EC5 5.5 1 x 0	EC5 5.5 1 x 0		30	0.028	
1037	66 x 68	ECD 900 1/0	ECD 900 1/0	plain	0.88	0.0011	
	69 x 72	EC4.5 4.1 1 x 0	EC4.5 4.1 1 x 0		23	0.028	
1044	70 x 73	EC 1200 1/0	EC 1200 1/0	plain	0.68	0.0011	
	43 x 43	EC6 51 1 x 0	EC6 51 1 x 0		171	0.142	
1047	44 x 44	ECDE 100 1/0	ECDE 100 1/0	plain	5.05	0.0056	
	92 x 92	EC6 51 1 x 0	EC6 51 1 x 0		184.4	0.147	1638 x 1638
1065	47 x 47	ECDE100 1/0	ECDE100 1/0	plain	5.44	0.0058	188 x 188
	55 x 55	EC5 11 1 x 0	EC5 5.5 1 x 0		37.3	0.053	
1067	56 x 56	ECD 450 1/0	ECD 900 1/0	plain	1.08	0.0021	
	69 x 69	EC5 5.5 1 x 0	EC5 5.5 1 x 0		30.7	0.036	
1070	70 x 70	ECD 900 1/0	ECD 900 1/0	plain	0.91	0.0014	
	59 x 34	EC5 11 1 x 0	EC5 5.5 1 x 0		35	0.043	210 x 44
1078	60 x 35	ECD 450 1/0	ECD 900 1/0	plain	1.03	0.0017	24 x 5
	53 x 53	EC5 11 1 x 0	EC5 11 1 x 0		47.8	0.043	
1080	54 x 54	ECD 450 1/0	ECD 450 1/0	plain	1.14	0.0017	
	59 x 46	EC5 11 1 x 0	EC5 11 1 x 0		47	0.058	210 x 15
1081	60 x 47	ECD 450 1/0	ECD 450 1/0	plain	1.40	0.023	24 x 18
	69 x 69	EC5 11 1 x 0	EC5 11 1 x 0		58.3	0.061	
1087	70 x 70	ECD 450 1/0	ECD 450 1/0	plain	1.72	0.0024	
	68 x 67	EC5 11 1 x 0	EC5 11 1 x 0		62	0.056	



TABLE 1 Continued

Commercial Style Designation	Fabric Count, Warp × Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^B	Mass per Unit Area, g/m ² [oz/yd. ²]	Nominal Thickness, ^C mm [in.]	Breaking Force, min, ^C Warp × Fill N/5 cm [lbf/in.]
		Warp	Filling				
1116	69.5 × 68	ECD 450 1/0	ECD 450 1/0	plain	1.83	0.0022	394 × 280
	59 × 57	EC5 22 1 × 0	EC5 22 1 × 0		105	0.0864	
1125	60 × 58	ECD 225 1/0	ECD 225 1/0	plain	3.10	0.0034	45 × 32
	39 × 38	EC5 11 1 × 2	EC9 33 1 × 0		88	0.104	
1165	40 × 39	ECD 450 1/2	ECG 150 1/0	plain	2.60	0.0041	40 × 45
	59 × 51	EC5 11 1 × 2	EC9 33 1 × 0		122	0.112	
1180	60 × 52	ECD 450 1/2	ECG 150 1/0	plain	3.60	0.0044	55 × 60
	59 × 49	EC5 11 1 × 0	EC5 11 1 × 0		49	0.058	
1280	60 × 50	ECD 450 1/0	ECD 450 1/0	plain	1.44	0.0023	482 × 525
	59 × 59	EC5 11 1 × 0	EC5 11 1 × 0		52.6	0.0559	
1316	60 × 60	ECD 450 1/0	ECD 450 1/0	plain	1.55	0.0022	210 × 210
	60 × 60	EC5 22 1 × 0	EC5 22 1 × 0		108	0.102	
1500	61 × 61	ECD 225 1/0	ECD 225 1/0	plain	3.18	0.004	700 × 700
	48 × 41	EC7 45 1 × 0	EC7 45 1 × 0		164.1	0.1499	
1501	49 × 42	ECE 110 × 1/0	ECE 110 × 1/0	plain	4.84	0.0059	80 × 80
	45 × 45	EC7 44 1 × 0	EC7 44 1 × 0		165	0.14	
1502	46 × 46	ECE 110 1/0	ECE 110 1/0	plain	4.86	0.0055	80 × 80
	51 × 49	EC7 42 1 × 0	EC7 42 1 × 0		162	0.150	
1503	52 × 50	ECE 125 1/0	ECE 125 1/0	plain	4.76	0.0059	80 × 80
	63 × 45	EC6 33 1 × 0	EC6 33 1 × 0		148	0.135	
1504	64 × 46	ECDE 150 1/0	ECDE 150 1/0	plain	4.36	0.0053	80 × 80
	59 × 59	EC6 33 1 × 0	EC6 33 1 × 0		148	0.124	
1510	60 × 60	ECDE 150 1/0	ECDE 150 1/0	plain	4.36	0.0049	482 × 394
	31 × 29	EC9 33 1 × 2	EC9 33 1 × 2		162	0.127	
1523	32 × 29	ECG 150 1/2	ECG 150 1/2	plain	4.78	0.0050	55 × 45
	28 × 20	EC9 33 3 × 2	EC9 33 3 × 2		390	0.356	
1526	28 × 20	ECG 150 3/2	ECG 150 3/2	plain	11.5	0.0140	160 × 140
	33 × 31	EC9 33 1 × 2	EC9 33 1 × 2		179	0.180	
1527	34 × 32	ECG 150 1/2	ECG 150 1/2	plain	5.27	0.0071	701 × 482
	17 × 17	EC9 33 3 × 3	EC9 33 3 × 3		431	0.406	
1528	17 × 17	ECG 150 3/3	ECG 150 3/3	plain	12.7	0.0160	180 × 170
	43 × 31	EC9 33 1 × 2	EC9 33 1 × 2		202	0.185	
1543	44 × 32	ECG 150 1/2	ECG 150 1/2	crowfoot	5.95	0.0073	80 × 55
	48 × 30	EC9 33 2 × 2	EC7 22 1 × 0		281	0.229	
1557	49 × 30	ECG 150 2/2	ECE 225 1/0	crowfoot	8.30	0.0090	250 × 20
	56 × 30	EC9 33 1 × 2	EC7 22 1 × 0		179	0.147	
1564	57 × 30	ECG 150 1/2	ECE 225 1/0	plain	5.27	0.0058	125 × 25
	20 × 18	EC9 33 4 × 2	EC9 33 4 × 2		414	0.381	
1581	20 × 18	ECG 150 4/2	ECG 150 4/2	8-H satin	12.2	0.0150	190 × 160
	56 × 53	EC9 33 1 × 2	EC9 33 1 × 2		290	0.254	
1582	57 × 54	ECG 150 1/2	ECG 150 1/2	8-H satin	8.55	0.010	150 × 130
	59 × 55	EC9 33 1 × 3	EC9 33 1 × 3		464	0.394	
1583	60 × 56	ECG 150 1/3	ECG 150 1/3	8-H satin	13.7	0.0155	160 × 150
	53 × 47	EC9 33 2 × 2	EC9 33 2 × 2		542	0.445	
1584	54 × 48	ECG 150 2/2	ECG 150 2/2	8-H satin	16.0	0.0175	250 × 225
	43 × 34	EC9 33 4 × 2	EC9 33 4 × 2		834	0.711	
1610	44 × 35	ECG 150 4/2	ECG 150 4/2	plain	24.6	0.028	300 × 250
	31 × 28	EC9 33 1 × 0	EC9 33 1 × 0		80	0.0914	
1634	32 × 28	ECG 150 1/0	ECG 150 1/0	plain	2.35	0.0036	35 × 30
	50 × 30	EC9 33 1 × 0	EC9 33 1 × 0		105.4	0.095	
1643	51 × 30	ECG 150 1/0	ECG 150 1/0	crowfoot	3.11	0.0037	613 × 482
	55 × 47	EC6 33 1 × 0	EC6 33 1 × 0		138	0.0127	
1647	56 × 48	ECDE 150 1 × 0	ECDE 150 1/0	plain	4.06	0.0050	70 × 55
	50 × 30	EC9 33 1 × 0	EC7 44 1 × 0		120.5	0.105	
1649	51 × 30	ECG 150 1/0	ECE 110 1/0	plain	3.55	0.0041	131 × 140
	50 × 37	EC9 33 1 × 0	EC7 44 1 × 0		135.9	0.119	
1651	51 × 38	ECG 150 1/0	ECE 110 1/0	plain	4.01	0.0047	15 × 16
	50 × 27	EC9 33 1 × 0	EC9 74 1 × 0		146.2	0.135	
1652	51 × 27	ECG 150 1/0	ECG 67 1/0	plain	4.31	0.0053	438 × 306
	51 × 51	EC6 33 1 × 0	EC6 33 1 × 0		136.9	0.114	
1657	52 × 52	ECDE 150 1/0	ECDE 150 1/0	plain	4.04	0.0045	182 × 182
	50 × 29	EC9 33 1 × 0	EC9 74 1 × 0		154.2	0.150	
1659	51 × 29	ECG 150 1/0	ECG 67 1/0	leno	4.53	0.0059	50 × 35
	20 × 10	EC9 33 1 × 0	EC9 68 1 × 0		54	0.0107	
1674	20 × 10	ECG 150 1/0	ECG 75 1/0	plain	1.60	0.0042	438 × 306
	39 × 31	EC9 33 1 × 0	EC9 33 1 × 0		95	0.109	
1675	40 × 32	ECG 150 1/0	ECG 150 1/0	plain	2.80	0.0043	50 × 35
	39 × 31	EC6 33 1 × 0	EC6 33 1 × 0		96	0.094	
	40 × 32	ECDE 150 1/0	ECDE 150 1/0		2.83	0.0037	50 × 35



TABLE 1 Continued

Commercial Style Designation	Fabric Count, Warp x Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^B	Mass per Unit Area, g/m ² [oz/yd. ²]	Nominal Thickness, ^C mm [in.]	Breaking Force, min, ^C Warp x Fill N/5 cm [lbf/in.]
		Warp	Filling				
1676	55 x 47	EC6 33 1 x 0	EC6 33 1 x 0	plain	136	0.122	613 x 525
	56 x 48	ECDE 150 1/0	ECDE 150 1/0		4.00	0.0048	70 x 60
1677	39 x 39	EC6 33 1 x 0	EC6 33 1 x 0	plain	106	0.112	525 x 438
	40 x 40	ECDE 150 1/0	ECDE 150 1/0		3.14	0.0044	60 x 50
1678	79 x 79	EC9 33 1 x 0	EC9 33 1 x 0	plain	105.8	0.091	1051 x 1051
	40 x 40	ECG150 1/0	G150 1/0		3.12	0.0036	120 x 120
1680	71 x 69	EC6 33 1 x 0	EC6 33 1 x 0	8-H satin	188	0.152	832 x 701
	72 x 70	ECDE 150 1/0	ECDE 150 1/0		5.56	0.0060	95 x 80
1681	55 x 35	EC6 33 1 x 0	EC6 33 1 x 0	plain	122	0.0122	525 x 394
	56 x 36	ECDE 150 1/0	ECDE 150 1/0		3.60	0.0048	60 x 45
1687	39 x 41	EC9 33 1 x 0	EC9 33 1 x 0	plain	108.5	0.1140	578 x 525
	40 x 42	ECG 150 1/0	ECG 150 1/0		3.20	0.0045	66 x 60
1697	43 x 37	EC9 33 1 x 0	EC9 33 1 x 0	plain	111.2	0.094	
	44 x 38	ECG 150 1/0	ECG 150 1/0		3.15	0.0037	
1800	16 x 14	EC13 275 1 x 0	EC13 275 1 x 0	plain	327	0.330	1313 x 1051
	16 x 14	ECK 18 1/0	ECK 18 1/0		9.65	0.0130	150 x 120
1874	43 x 34	EC13 275 1 x 0	EC13 275 1 x 0	8-H satin	865	0.0681	3152 x 2758
	44 x 35	ECK 18 1/0	ECG 37 1/2		26.08	0.0245	360 x 315
1884	43 x 34	EC13 275 1 x 0	EC13 275 1 x 0	8-H satin	847	0.7112	2627 x 2189
	44 x 35	ECK 18 1/0	ECK 18 1/0		25.0	0.0280	300 x 250
1887	39 x 20	EC13 275 1 x 0	EC13 275 1 x 0	mock leno	715	0.584	311 x 163
	40 x 21	ECK 18 1/0	ECK 18 1/0		21.10	0.0230	2723 x 1427
2013	46 x 44	EC7 22 1 x 0	EC7 22 1 x 0	plain	81	0.070	
	47 x 45	ECE 225 1/0	ECE 225 1/0		2.39	0.00276	
2112	39 x 38	EC5 22 1 x 0	EC5 22 1 x 0	plain	71	0.079	263 x 210
	40 x 39	ECD 225 1/0	ECD 225 1/0		2.10	0.0031	30 x 24
2113	59 x 55	EC5 22 1 x 0	EC5 11 1 x 0	plain	81	0.0076	420 x 210
	60 x 56	ECD 225 1/0	ECD 450 1/0		2.38	0.0030	48 x 24
2114	55 x 47	EC7 22 1 x 0	EC7 22 1 x 0	plain	90.9	0.084	
	56 x 48	ECE 225 1/0	ECE 225 1/0		2.69	0.0033	
2116	59 x 57	EC5 22 1 x 0	EC5 22 1 x 0	plain	105	0.086	350 x 280
	60 x 58	ECD 225 1/0	ECD 225 1/0		3.10	0.0034	40 x 32
2117	65 x 64	EC7 22 1 x 0	EC7 22 1 x 0	plain	108	0.094	
	66 x 54	ECE 225 1/0	ECE 225 1/0		3.18	0.0037	
2118	39 x 62	EC7 22 1 x 0	EC7 22 1 x 0	plain	111.7	0.091	
	40 x 63	ECE 225 1/0	ECE 225 1/0		3.29	0.0036	
2119	53 x 49	EC7 22 1 x 0	EC7 22 1 x 0	plain	90.2	0.086	315 x 236
	54 x 50	ECE 225 1/0	ECE 225 1/0		2.66	0.0034	36 x 27
2120	59 x 57	EC5 22 1 x 0	EC5 22 1 x 0	crowfoot	106	0.107	525 x 482
	60 x 58	ECD 225 1/0	ECD 225 1/0		3.12	0.0042	60 x 55
2125	39 x 38	EC5 22 1 x 0	EC9 33 1 x 0	plain	88	0.0965	263 x 394
	40 x 39	ECD 225 1/0	ECG 150 1/0		2.60	0.0038	30 x 45
2150	65 x 47	EC5 22 1 x 0	EC5 22 1 x 0	plain	87	0.076	
	66 x 48	ECD 225 1/0	ECD 225 1/0		2.56	0.0030	
2157	59 x 34	EC7 22 1 x 0	EC9 68 1 x 0	plain	148	0.130	
	60 x 35	ECE 225 1/0	ECG 75 1/0		4.36	0.0051	
2165	59 x 51	EC5 22 1 x 0	EC9 33 1 x 0	plain	123	0.122	482 x 525
	60 x 52	ECD 225 1/0	ECG 150 1/0		3.62	0.0048	55 x 60
2166	59 x 37	EC7 22 1 x 0	EC9 68 1 x 0	plain	155	0.140	
	60 x 38	ECE 225 1/0	ECG 75 1/0		4.6	0.0055	
2218	89 x 59	EC7 22 1 x 0	EC7 22 1 x 0	crowfoot	138	0.0127	534 x 394
	90 x 60	ECE 225 1/0	ECE 225 1/0		4.06	0.0050	61 x 45
2225	35 x 33	EC7 22 1 x 2	EC7 22 1 x 2	plain	127	0.323	51 x 48
	36 x 34	ECE 225 1/2	ECE 225 1/2		3.75	0.0127	447 x 420
2238	63 x 59	EC7 22 1 x 2	EC7 22 1 x 2	crowfoot	231	0.0452	102 x 90
	64 x 60	ECE 225 1/2	ECE 225 1/2		6.80	0.0178	893 x 788
2313	59 x 63	EC7 22 1 x 0	EC5 11 1 x 0	plain	80.5	0.838	50 x 24
	60 x 64	ECE 225 1/0	ECD 450 1/0		2.38	0.0033	438 x 210
2316	60 x 60	EC7 22 1 x 0	EC7 22 1 x 0	plain	108	0.0889	359 x 298
	61 x 61	ECE 225 1/0	ECE 225 1/0		3.18	0.0035	41 x 34
2319	48 x 48	EC7 22 1 x 0	EC7 22 1 x 0	plain	92.2	0.086	
	48.5 x 49	ECE 225 1/0	ECE 225 1/0		2.72	0.0034	
2500	16 x 16	EC10 190 1 x 0	EC10 190 1 x 0	leno	272	0.508	876 x 858
	16 x 16	ECH 25 1/0	ECH 25 1/0		8.01	0.0200	100 x 98
2523	28 x 20	EC10 198 1 x 0	EC10 198 1 x 0	plain	390	0.328	1138 x 1138
	28 x 20	ECH 25 1/0	ECH 25 1/0		11.5	0.0129	130 x 130
2532	16 x 14	EC10 198 1 x 0	EC10 198 1 x 0	plain	230	0.246	876 x 832
	16 x 14	ECH 25 1/0	ECH 25 1/0		6.8	0.0097	100 x 95



TABLE 1 Continued

Commercial Style Designation	Fabric Count, Warp × Fill Yarns 25 mm yarns/in.	Yarn Designation tex ^A inch-pound units		Fabric Weave Type ^B	Mass per Unit Area, g/m ² [oz/yd. ²]	Nominal Thickness, ^C mm [in.]	Breaking Force, min, ^C Warp × Fill N/5 cm [lbf/in.]
		Warp	Filling				
3070	69 × 69	EC6 17.5 1 × 0	EC6 17.5	plain	93.6	0.078	1104 × 1104
	70 × 70	ECDE300 1/0	ECDE300 1/0		2.76	0.0031	133 × 133
3080	50 × 30	EC6 16.5 1 × 0	EC6 16.5 1 × 0	plain	53.4	0.059	
	51 × 30	ECDE 300 1/0	ECDE 300 1/0		1.57	0.0023	
3113	50 × 30	EC7 22 1 × 0	EC9 33 1 × 0	plain	84.8	0.081	
	51 × 30	ECE 225 1/0	ECG 150 1/0		2.50	0.0032	
3132	59 × 59	EC5 11 1 × 0	EC7 22 1 × 0	plain	79	0.071	
	60 × 60	ECD 450 1/0	ECE 225 1/0		2.32	0.0028	
3313	59 × 61	EC6 17.5 1 × 0	EC6 17.5	plain	80.5	0.084	944 × 976
	60 × 62	ECDE300 1/0	ECDE300 1/0		2.38	0.0033	114 × 118
3323	59 × 45	EC6 16.5 1 × 0	EC7 22 1 × 0	plain	81.3	0.086	
	60 × 46	ECDE 300 1/0	ECDE 300 1/0		2.4	0.0034	
3700	15 × 14	EC9 134 1 × 2	EC9 134 1 × 2	plain	311	0.312	1033 × 928
	15 × 14	ECG 37 1/2	ECG 37 1/2		9.18	0.0123	118 × 106
3701	12 × 6	EC9 134 1 × 0	EC9 134 1 × 0	leno	134.6	0.244	446 × 438
	12 × 6	ECG 37 1/0	ECG 37 1/0		3.97	0.0096	51 × 50
3732	47 × 31	EC9 134 1 × 0	EC9 134 1 × 0	crowfoot	424	0.318	1532 × 1313
	48 × 32	ECG 37 1/0	ECG 37 1/0		12.5	0.0125	175 × 150
3733	18 × 18	EC9 134 1 × 0	EC9 134 1 × 0	plain	190	0.198	788 × 744
	18 × 18	ECG 37 1/0	ECG 37 1/0		5.60	0.0078	90 × 85
3734	47 × 31	ECG 134 1 × 0	ECG 134 1 × 0	crowfoot	432	0.366	1681 × 1147
	48 × 32	ECDE 37 1/0	ECDE 37 1/0		12.74	0.0144	192 × 131
3743	48 × 30	EC9 134 1 × 0	EC7 22 1 × 0	crowfoot	281	0.208	2189 × 175
	49 × 30	ECG 37 1/0	ECE 225 1/0		8.30	0.0082	250 × 20
3744	28 × 14	EC9 134 1 × 2	EC9 134 1 × 4	2 end plain	610	0.508	1926 × 1909
	28 × 14	ECG 37 1/2	ECG 37 1/4		18.00	0.0200	220 × 218
3745	27 × 28	EC9 134 1 × 0	EC9 134 1 × 2	2 pk. plain	593	0.470	1751 × 1883
	27 × 28	ECG 37 1/2	ECG 37 1/2		17.50	0.0185	200 × 215
3783	53 × 47	EC9 134 1 × 0	EC9 134 1 × 0	8-H satin	576	0.406	1751 × 1707
	54 × 48	ECG 37 1/2	ECG 37 1/2		16.99	0.0160	200 × 195
3784	43 × 34	EC9 134 1 × 0	EC9 134 1 × 0	8-H satin	901	0.610	2522 × 2242
	44 × 35	ECG 37 1/2	ECG 37 1/2		26.57	0.0240	288 × 256
3787	39 × 21	EC9 134 1 × 2	EC9 134 1 × 2	mock leno	695	0.762	2102 × 1261
	40 × 21	ECG 37 1/2	ECG 37 1/2		20.50	0.0300	240 × 14
3788	41 × 35	EC9 134 1 × 4	EC9 134 1 × 4	12-H satin	1856	1.156	4282 × 3555
	42 × 36	ECG 37 1/4	ECG 37 1/4		54.75	0.0455	489 × 406
5020	18 × 18	EC9 99 1 × 2	EC9 99 1 × 2	plain	294	0.305	928 × 876
	18 × 18	ECG 50 1/2	ECG 50 1/2		8.68	0.0120	106 × 100
5023	48 × 30	EC9 99 1 × 2	EC9 99 1 × 2	crowfoot	288	0.330	1489 × 1226
	49 × 30	ECG 50 1/2	ECG 50 1/2		8.50	0.0130	170 × 140
5027	17 × 17	EC9 99 1 × 3	EC9 99 1 × 3	plain	417	0.419	1489 × 1401
	17 × 17	ECG 50 1/3	ECG 50 1/3		12.30	0.0165	170 × 160
5032	16 × 14	EC9 99 1 × 2	EC9 99 1 × 2	plain	245	0.254	893 × 753
	16 × 14	ECG 50 1/2	ECG 50 1/2		7.23	0.0100	102 × 86
5082	59 × 55	EC9 99 1 × 0	EC9 99 1 × 0	8-H satin	471	0.330	1471 × 1401
	60 × 56	ECG 50 1/0	ECG 50 1/0		13.90	0.0130	168 × 160
6060	59 × 59	EC6 8.75 1 × 0	EC6 8.75 1 × 0	plain	39.0	0.048	472 × 472
	60 × 60	ECDE600 1/0	ECDE600 1/0		1.15	0.0019	57 × 57
7196	50 × 32	EC9 74 1 × 0	EC9 74 1 × 0	plain	230	0.201	
	51 × 33	ECG 67 1/0	ECG 67 1/0		6.72	0.0079	
7500	16 × 14	EC9 68 2 × 2	EC9 68 2 × 2	plain	324	0.368	1313 × 1051
	16 × 14	ECG 75 2/2	ECG 75 2/2		9.55	0.0145	150 × 120
7520	18 × 17	EC9 68 1 × 3	EC9 68 1 × 3	plain	279	0.251	919 × 876
	18 × 17	ECG 75 1/3	ECG 75 1/3		8.22	0.0099	105 × 100
7532	16 × 14	EC9 68 1 × 3	EC9 68 1 × 3	plain	239	0.305	1007 × 876
	16 × 14	ECG 75 1/3	ECG 75 1/3		7.05	0.012	115 × 100
7533	18 × 18	EC9 68 1 × 2	EC9 68 1 × 2	plain	192	0.234	788 × 744
	18 × 18	ECG 75 1/2	ECG 75 1/2		5.65	0.0092	90 × 85
7543	48 × 30	EC9 68 1 × 2	EC7 22 1 × 0	crowfoot	288	0.2032	1681 × 193
	49 × 30	ECG 75 1/2	ECE 225 1/0		8.50	0.0080	192 × 22
7544	28 × 14	EC9 68 2 × 2	EC9 68 2 × 4	2/1 basket	600	0.559	1664 × 1401
	28 × 14	ECG 75 2/2	ECG 75 2/4		17.7	0.0220	190 × 160
7557	56 × 29	EC9 68 1 × 0	EC7 22 1 × 0	crowfoot	184	0.140	981 × 193
	57 × 30	ECG 75 1/0	ECE 225 1/0		5.42	0.0055	112 × 22
7581	56 × 53	EC9 68 1 × 0	EC9 68 1 × 0	8-H satin	302	0.246	718 × 525
	57 × 54	ECG 75 1/0	ECG 75 1/0		8.90	0.0097	82 × 60
7583	53 × 47	EC9 68 1 × 2	EC9 68 1 × 2	8-H satin	546	0.396	1821 × 1646
	54 × 48	ECG 75 1/2	ECG 75 1/2		16.10	0.0156	208 × 188
7587	39 × 21	EC9 68 2 × 2	EC9 68 2 × 2	mock leno	678	0.800	2627 × 1489