Designation: D1668 – 97a(Reapproved 2006)

Standard Specification for Glass Fabrics (Woven and Treated) for Roofing and Waterproofing[1]

This standard is issued under the fixed designation D1668; 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.

This standard has been approved for use by agencies of the Department of Defense.
This specification replaces Federal Specification HH-C-466.

1. Scope

1.1 This specification covers finished treated (coated) woven-glass fabrics coated with either asphalt, coal-tar pitch or an organic resin compatible with the roofing, waterproofing, or other usage as specified by the purchaser.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D123 Terminology Relating to Textiles
D146 Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing
D579 Specification for Greige Woven Glass Fabrics
D1079 Terminology Relating to Roofing and Waterproofing
D3775 Test Method for Warp (End) and Filling (Pick) Count of Woven Fabrics
D3776 Test Methods for Mass Per Unit Area (Weight) of Fabric

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminology D123 or D1079.

4. Classification of Fabric Treatments with Generally Applicable Usage

4.1 *Type I, Asphalt Treated*—Type I is suitable for use with all asphalts and asphalt based compounds.

4.2 *Type II, Coal Tar Pitch Treated*—Type II is suitable for use with all coal tar pitches and coal tar pitch based compounds (Note 1).

4.3 *Type III, Organic Resin Treated*—The purchaser and supplier shall agree on an organic resin that is compatible with or is suitable for, or both, the plying liquid plying materials either specified or to be used. This organic resin shall not be water soluble.

NOTE 1—In some instances the purchaser may specify the use of Types I or II for systems using other than coal tar bitumens or asphalt.

5. Materials and Manufacture

5.1 The untreated (greige) scrim (open basket weave) or leno (locked weave) fabrics shall conform to the requirements as specified in Table 1.

5.2 In the process of manufacture, the fibers of the untreated glass fabric shall be thoroughly and uniformly coated using equipment which, in combination, handles the fabric and uses a machine speed in a total process that will not injure or distort the weave of the fabric.

5.3 Glass fabric is usually woven in nominal widths of 0.91, 1.83 and 2.74 m (36, 72 and 108 in.) by the weaving mills. Extra warp (the length of the fabric) threads are included in 1.83 and 2.74-m (72 and 108-in.) wide fabrics to obtain incremental fabric roll widths of 0.91 m (36 in.). These extra warp threads with a slitting space between each set (a set of two) of bunched warp threads create a duplicate or "dupe" selvedge with a "brush" edge created by the cut fill threads instead of the usually wrapped fill threads seen in a smooth selvedge. This type of fabric selvedge edge is, and has been, an acceptable fabric design (pattern) in both the weaving and construction industry.

5.4 Brush edge of the "dupe" selvedge is not to be included in the measurement of the finished roll width.

5.5 The purchaser may specify widths of more than or less than 0.91 m (36 in.). These widths can be furnished at the manufacturer's option.

[1] This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.04 on Felts, Fabrics and Bituminous Sheet Materials.

Current edition approved Jan. 15, 2006. Published January 2006. Originally approved in 1959. Last previous edition approved in 1997 as D1668 – 97a. DOI: 10.1520/D1668-97AR06.

[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.