

Standard Practice for Installation Procedures of Vinyl Deck Coverings on Portable Plates in Electrical and Electronic Spaces¹

This standard is issued under the fixed designation F 1331; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers the acceptable method for installing insulated deck covering on portable deck plates.

1.2 This deck covering shall be installed, in way of the electrical and electronic spaces, for marine use.

1.3 The values stated in SI (metric) units are to be regarded as the standard. The values in parentheses are for information only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

D 1338 Practice for Working Life of Liquid or Paste Adhesives by Consistency and Bond Strength²

D 2393 Test Method for Viscosity of Epoxy Resins and Related Components³

D 4389 Specification for Finished Glass Fabrics Woven from Rovings⁴

F 150 Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring⁵

2.2 Other Documents:

Steel Structural Painting Council SP-11⁶

3. Requirements

3.1 *Operations Area*—Typical areas for application of the electric insulating deck covering are:

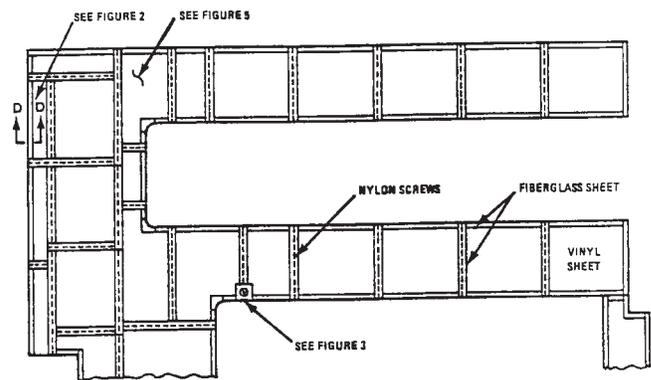
3.1.1 The operating areas in front and rear of power and lighting switchboards, interior-communication switchboards, test switchboards, fire-control switchboards, and shipboard announcing-systems amplifiers and control panels.

3.1.2 The area around electronic equipment which may be contacted by personnel in servicing or tuning energized equipment.

3.1.3 Vinyl sheets should be confined to the minimum deck areas (generally 0.9 m (3 ft) wide) surrounding the apparatus necessary to prevent electric shock, and should, unless otherwise specified, be cemented to the deck in lieu of other specified deck coverings.

3.2 Installation—Vinyl Sheets:

3.2.1 Installation of deck covering shall be in accordance with Figs. 1-7, using vinyl sheet and fiberglass binding strips (see Fig. 1 and Fig. 5).



PORTABLE DECK PLATES - ELECT / ELEX. SPACE
FIG. 1 Typical Deck Covering Plan View

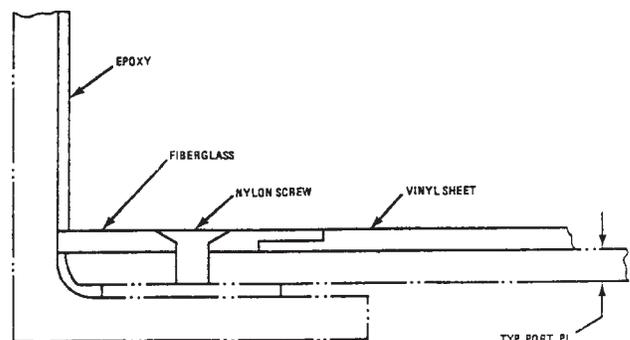


FIG. 2 Section "D-D" (See Fig. 1)

¹ This practice is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.03 on Outfitting.

Current edition approved March 15, 1991. Published June 1991.

² Annual Book of ASTM Standards, Vol 15.06.

³ Discontinued; See 1991 Annual Book of ASTM Standards, Vol 08.02.

⁴ Annual Book of ASTM Standards, Vol 07.02.

⁵ Annual Book of ASTM Standards, Vol 15.04.

⁶ Available from Steel Structures Painting Council (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656.

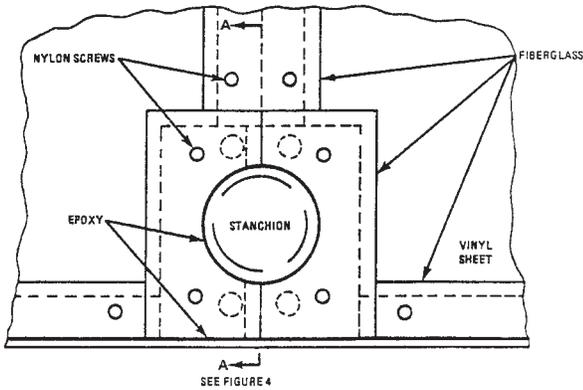
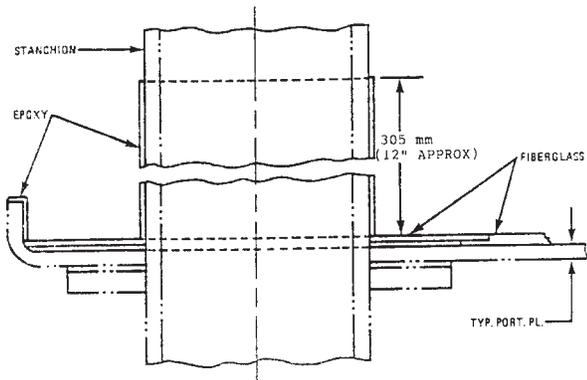


FIG. 3 Expanded View of Deck Covering at Stanchion (TYP)



NOTE—25.4 mm = 1 in.
FIG. 4 Section "A-A" (See Fig. 3)

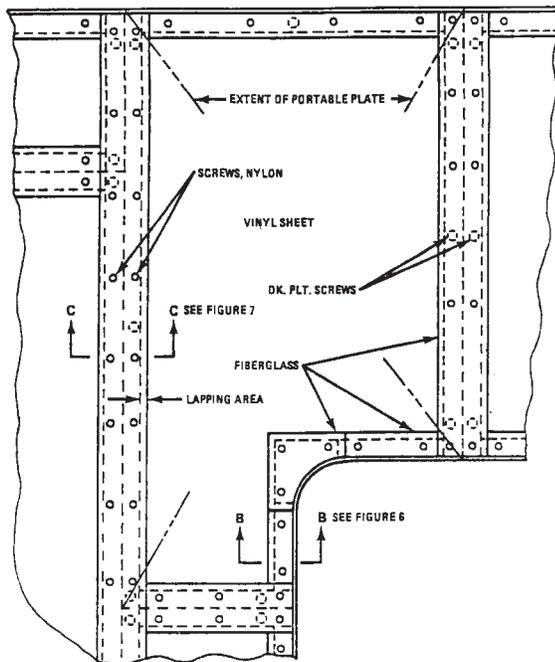
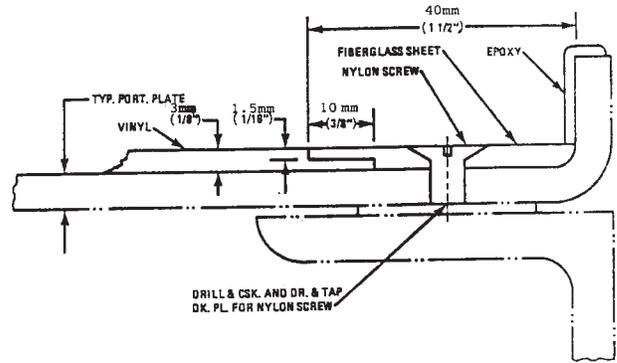
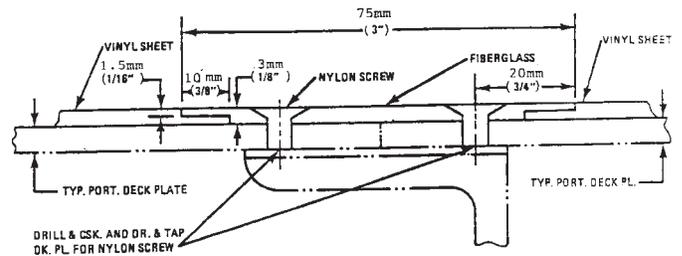


FIG. 5 Expanded View of One Portable Plate (TYP)

3.2.2 Vinyl sheets and fiberglass sheets shall be united at the edges in a rabbet joint as shown (see Fig. 7), and such that the fiberglass overlaps at all joints. All rabbeted surfaces shall be



NOTE—25.4 mm = 1 in.
FIG. 6 Section "B-B" (See Fig. 5)



NOTE—25.4 mm = 1 in.
FIG. 7 Section "C-C" (See Fig. 5)

smooth and corners sharp and square, such that at installation the overlapping areas fit firmly and flush. Vinyl shall meet requirements and tests provided in Test Method F 150.

3.3 Adhesive:

3.3.1 Vinyl sheets shall be secured to each portable plate with adhesive. Adhesive should not extend beyond edges of vinyl sheet.

3.3.2 Silicone compound, with 1 % liquid catalyst, should be applied between lapping areas in accordance with Test Method D 1338.

3.4 Fiberglass—Glass fiber base, epoxy resin sheets furnished under this specification (Fig. 1 and Fig. 5), shall be a product consisting of plies or layers of cloth or nonwoven parallel aligned fibers bonded with an epoxy resin compound, in accordance with Specification D 4389.

3.5 Fastening with Nylon Screws—Fiberglass binding strips shall be secured to the deck with nylon screws. A 76-mm (3-in.) wide strip over joints between portable plates shall be fastened with a double row of screws. A 38-mm (1½-in.) wide strip or shape to suit at deck edges shall be fastened with a single row of screws, spacing between screws not to exceed 127 mm (5 in.) center-to-center and located to clear deck plate screws. (See Fig. 7.)

3.6 Exposed Areas Treated with Epoxy:

3.6.1 Before the epoxy is applied, the surface to be covered should be (a) cleaned with a solvent, and (b) further treated in accordance with Steel Structural Painting Council SP-11.

3.6.2 Epoxy resin shall be applied to the exposed vertical lip of deck edges on stanchions, to approximately 305 mm (12 in.) above deck, after all other deck covering work has been

completed. Application of epoxy shall be by brush to approximately 1.5-mm ($1/16$ -in.) thickness, and in accordance with Test Method D 2393. (For location of epoxy to be applied, see Fig. 3 and Fig. 4.)

ship; vinyl deck covering

4. Keywords

4.1 deck covering; electrical space; electronic space; insulated deck covering; marine technology; portable deck plate;

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org).