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**Designation: F 1516 – 03**

## Standard Practice for Sealing Seams of Resilient Flooring Products by the Heat Weld Method (when Recommended)<sup>1</sup>

This standard is issued under the fixed designation F 1516; 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.

<sup>1</sup> This practice is under the jurisdiction of ASTM Committee F-6 F06 on Resilient Floor Coverings and is the direct responsibility of Subcommittee F06.40 on Special Properties.

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### 1. Scope

1.1 This practice covers the instructions and precautions to be observed to ensure satisfactory performance of seams in resilient flooring sealed by the heat weld method.

1.2 *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.* See precaution information in 6.1.

### 2. Referenced Documents

2.1 *ASTM Standards:*

F 141 Terminology Relating to Resilient Floor Coverings<sup>2</sup>

### 3. Terminology

3.1 For definitions of terms used in this practice refer to Terminology F 141.

### 4. Significance and Use

4.1 Seams in some resilient flooring are heat sealed to prevent openings from forming between cut edges and to prevent penetrations of dirt, liquids, etc., into the seams. Decorative appearances may also be achieved using contrasting heat weld thread (rod).

### 5. Instructions

5.1 Flooring shall be installed in accordance with the manufacturer's instructions.

5.2 Particular attention shall be paid to proper cutting of seams and tightness of cut seams. Specified tightness of seams to be heat sealed (welded) will vary depending on the flooring product and type of tools used to perform the heat weld.

5.3 Prior to heat welding, seams shall be routed to a depth specified by the manufacturer. Routing can be accomplished with electric or hand routing tools as specified by the manufacturer. Follow flooring manufacturer's instructions for specific details.

5.4 Routing and heat welding of seams normally are performed the day after flooring is adhered (installed) to allow adhesive to dry. Some tile products are routed at the factory, and on site routing is not required. The process involves the melting of thread (rod) into the gap of a routed seam. Special electric hot air tools with variable temperature settings are required. Because temperature settings will vary depending on the length of extension cord, room and underfloor temperature, floor covering material, and welding rod composition, a trial length shall be performed and tested after cooling to determine if the bond and appearance of the weld thread to the seam edges is satisfactory. Weld threads are available in various colors to match the color of the flooring. Accent thread colors are also available. Use weld thread (rod) as recommended by the manufacturer of the flooring.

5.5 Approximately one-half of the weld thread thickness will adhere to the seam. The excess will be trimmed off flush with the surface of the flooring when cooled. Trimming of excess weld thread is accomplished in one step for rubber products and in two steps for vinyl and linoleum products. ~~Welded seams shall be allowed~~ Generally, it is recommended to let welded seams cool before trimming. ~~There are a few exceptions, so follow manufacturer's specific recommendations.~~ Trim knives and attachments are available from the flooring manufacturer or various flooring installation tool suppliers.

<sup>2</sup> Annual Book of ASTM Standards, Vol 15.04.

5.6 Some manufacturers recommend use of a final glazing with either the heat gun or use of a chemical sealer to reduce the porosity and seal the top surface of the weld. Follow manufacturer’s specific recommendations.

## **6. Precautions**

6.1 Use caution when handling and using tools required for heat welding seams. Hot air guns can cause severe burns. Routing tools and trim knives are very sharp. Be sure electric extension cords are in good condition and connected to a ground fault receptacle.

## **7. Keywords**

7.1 heat weld; installation; resilient sheet flooring; resilient tile; sealing

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