

Non-Textile Flooring Welding Rod Seam Procedure

Application Guide

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AerEase™, AerMat™, PanFlor™ & AerFusion™

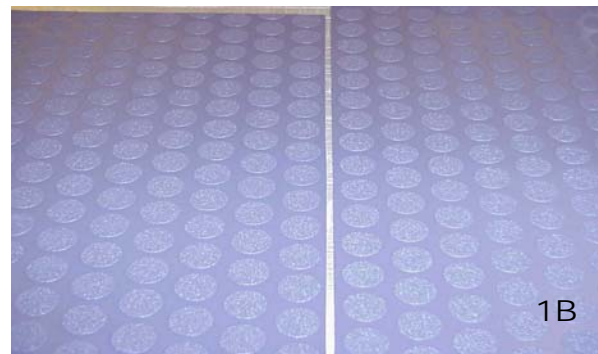
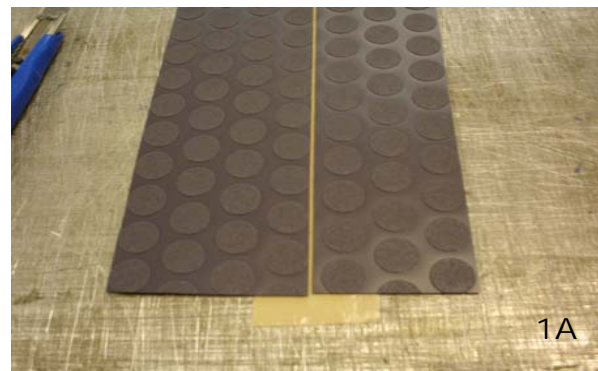
Face side welding is performed using an electronic-variable speed and temperature hot air gun with a welding nozzle, using a 5/32" (0.158 in)(4mm) diameter PVC rod. This welding rod is available in a variety of colors, including transparent.

Materials Required

- Sharp Razor Knife
- Nashua® 324A Insulating Material Tape
- Welding Equipment Kit (Available from Schneller):
 - Leister Hot Jet S Heat Welding Tool
 - 4mm Round Welding Nozzle
 - Knife (for removing soft PVC bead)
- Teflon Roller
- Heat Activated Adhesive Tape
- Straight Edge
- PVC Welding Rod (Available from Schneller)
- Standard Flooring Nozzle
- Hand-grooving Tool with Blade
- Brass Nozzle Cleaning Brush

Non-Textile Flooring Placement

- 1) Place a strip of Polyken 108 tape under the area to be seamed. The tape needs to be installed for two reasons: 1) Prevent movement at the joint during the seaming process and, 2) protect the surface underneath from being damaged by the heat. (Illustration 1A).
- 2) Cut both pieces of Non-Textile Flooring (NTF) to the desired length.
- 3) Position Schneller NTF in place, leaving a .060-.080" (1.5-2.0mm) gap between the edges to be welded as illustrated in 1A, taking care to align both sections.
- 4) The NTF should be cut so the seam is located between two rows of "buttons", if applicable.
- 5) If necessary, a grooving tool can be used to remove the top vinyl material along with the length of the splice to make a consistent width.

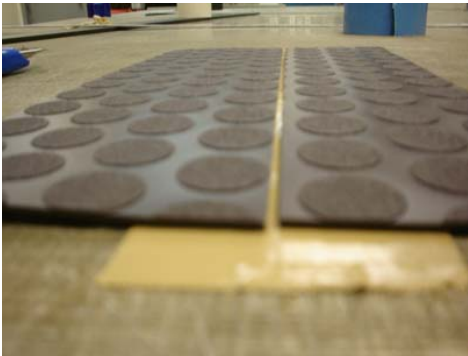


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Gap / Joint Grooving



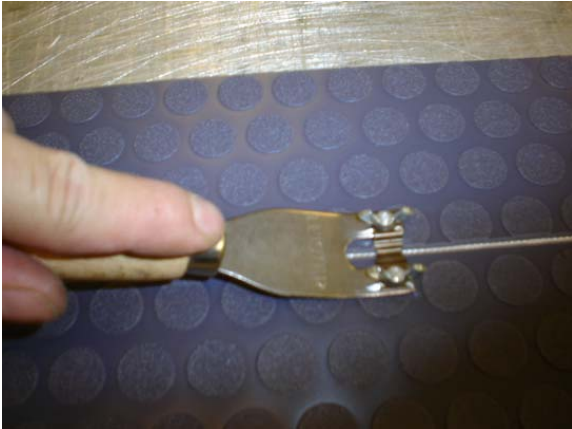
Gap Joint (for butt seam)



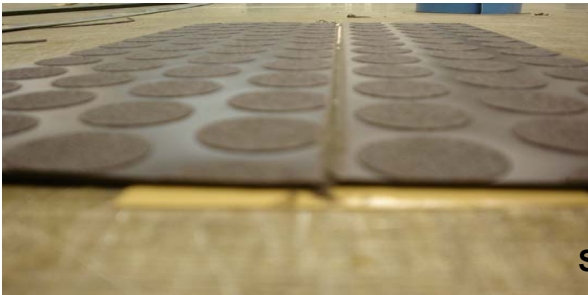
Tight Joint (for grooved seam)



Depending on if you would like a grooved seam or a butt seam determines if grooving is necessary. When seaming AerMat™ 9000, grooving may be done because of the thickness of the material; when seaming a thinner material, like AerMat™ 9500, a butt seam is sufficient.



Grooving Tool



Seam after Grooving

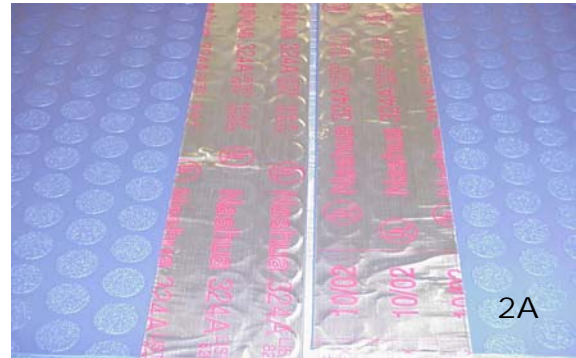
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Insulation Tape Application

- 6) Using an insulating tape (i.e. foil), run a strip along each edge of the material to be welded (as illustrated in 2A). Careful attention needs to be taken to ensure tape does not fall within the gap. This tape will help to minimize any gloss effects or damage caused by the heat from the hot air gun during the welding process, be sure to compress the tape between buttons, this will minimize any bridging that might allow heated air to gloss the material underneath the tape.



Welding

- 7) Depending on the exact model and type of welding equipment, it may have a temperature and air velocity setting. These conditions will vary depending on the application and operator. A suggested starting point using the welding equipment (Leister model, Hot Jet S) is the temperature is set at 6.
- 8) Practice on a scrap piece of NTF to ensure the welding gun has reached the adequate temperature. Feed the welding rod through the speed nozzle as illustrated in 3A. Position the welding rod at the start of the joint, move smoothly along the edges with the base of the nozzle parallel with the floor. Go as slowly as possible (without "burning") to ensure the rod "softens" to provide for maximum adhesion. If the welding rod begins to "burn", increase the rate of movement along the joint. See illustration 3A.



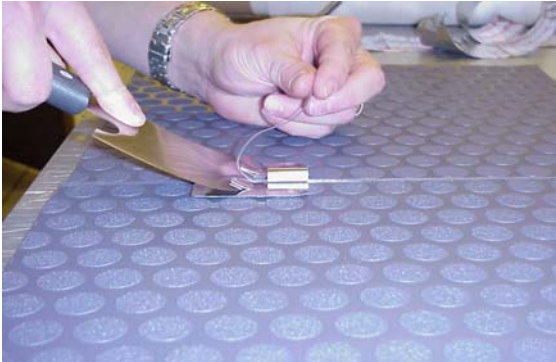
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Finishing

9) Once the material has cooled (keep the Aluminum tape on the mat, this will ease the guide while trimming off the welding rod) use a sharp knife and guide (as shown in Figure 4A) to remove the excess from the welding rod. This will provide for a uniform height and appearance.

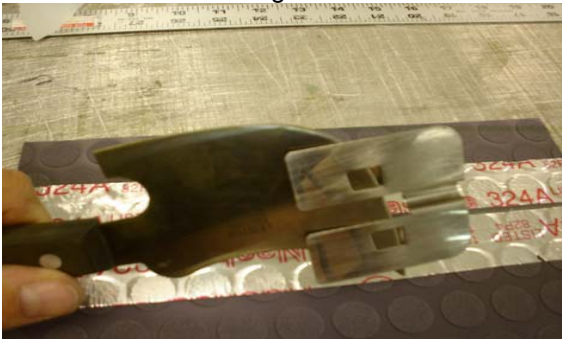


10) Trimming on/off aircraft

a. Trim Sled – The trim sled can be used when welding off the aircraft; it is difficult to use the trim sled on the aircraft because it is difficult to trim the entire seam in tight quarters.



b. Trim Knife – The trim knife can be used on or off the aircraft; the sled attachment allows more of the welding rod (the thickness of the sled) to remain on the seam after trimming.



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OPTIONAL:

- 11) After the excess welding rod has been removed, turn the mat over and apply the heat activated welding tape (The adhesive activates at a minimum temperature of 211°F) to the back side of the seam. Using a heat gun, and a Teflon roller, heat the tape to the activation temperature, and simultaneously roll the adhesive tape to ensure contact to the NTF. This temperature is easily recognized when the adhesive tape turns a darker color and adheres to the NTF. When the tape starts to shrink or curl the adhesive tape is too hot. Continue to apply the tape down the entire length of the seam. Allow the NTF to cool before re-rolling for installation.

