Chapter 8

Heat welding

Topics

8.1 Welding seams 38

8.2 Trimming seams 38

8.3 Welding corners 38

8.1 Welding seams

After all seams have been grooved, heat welding can begin. All seams and corners must be grooved heat welded with weldrod. When welding traditional safety flooring use a 4mm speed tip. For all of our non safety flooring a 4mm narrow flow tip should be used. Weldrod is supplied in colors to suit the floor covering being used. Wait overnight for adhesive to set before welding.

This wait period is not required for our adhesive free products.

Preparation

- Ensure the heat welding nozzle is free of debris by cleaning the inside of the barrel with a wire brush before each weld.
- Make certain the heat welding gun is between 482°F (250°C) and 662°F (350°C). Test on scrap pieces of material to ensure complete melting and fusing of the heat-weld rod and floor material and to ensure that a smooth and uniform heat-weld can be achieved without burning (the final speed of heat-welding and temperature setting will need to be determined through practice). Ensure the weldrod is cut to the correct length for the seam to be welded and that it will not catch on any objects in the area.

Welding

- Move the welding gun along the grooved seam with the weldrod feeding through the nozzle at the predetermined speed and temperature.
- Do not lean the gun to the right or left. Keep the foot of the nozzle parallel to the floor surface.

8.2 Trimming seams

Horizontal areas

In flat areas, trimming of the weldrod should be carried out in two stages:

- Place a trim plate over the weldrod and trim off the top layer of the weldrod with the spatula knife. This can be done while the weldrod is still warm.
- When the remaining weldrod has cooled, trim the excess weld flush with the flooring surface using a spatula knife (without the trim plate).

Corners and vertical coved areas

Use X-ACTO blades to trim cooled weldrod in corners and coved areas.

Altro Marine 20 safety flooring

After heat welding Altro Marine 20, use a Slim Trim Chisel, with a straightedge as a guide, to trim the excess weldrod. For questions please contact Technical Services.

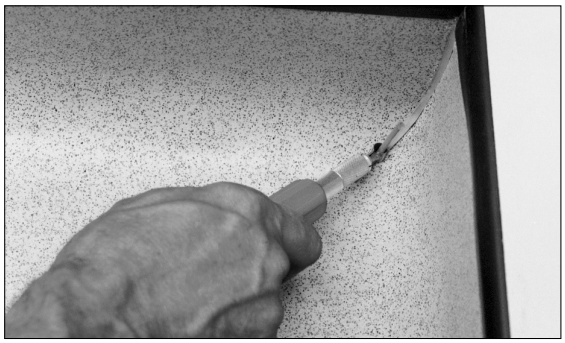
8.3 Welding corners

To weld internal and external corners, turn the nozzle at the end of the welding gun to the “up” position which allows for an easier starting point and proceed as shown. Once all the welding on the coved sections is completed, turn the high speed nozzle to the “down” position and heat weld the grooved floor seams.

A feed roller may be used in lieu of a welding tip when heat-welding corners and certain other hard to access areas of heat-welding.

Welding an internal corner

1. All internal corners must be grooved before heat welding.

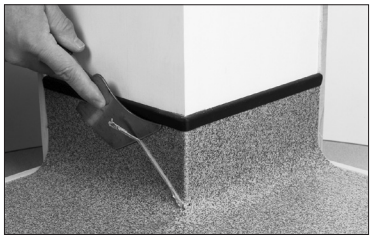


2. The X-ACTO small round router blade should be used for trimming the cooled weldrod on internal corners.

Welding a butterfly external corner

1. The seams must be grooved before the seams are welded. The use of a diamond shaped X-ACTO blade inserted in to the end of the reduction nozzle can be very helpful when grooving vertical seams. Make sure to turn the heat down on the welder. Remember to always try this method on a scrap of material first to dial in the heat correctly and not burn the flooring or capping.

2. Feed the weldrod through the nozzle and weld down the seam, or use a feed roller for better control. Avoid contact with the vinyl cap.

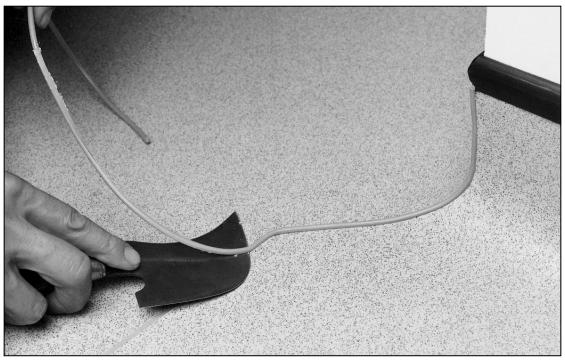


3. Allow the weldrod to cool down before cutting off the surplus with a spatula. The X-ACTO large round router blade should be used for trimming the weldrod where the two seams meet at the corner.

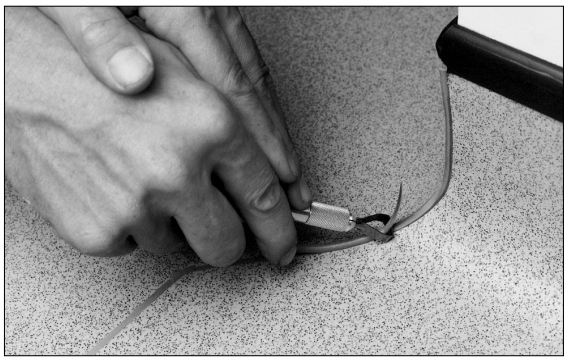
Welding a boot external corner

1. The bottom section and floor seams must be grooved before the seams are welded. The top section normally does not need to be grooved as a “V” shape will be formed when cutting in the corner.

2. Adhesive must be properly set. To make it easy to weld the corner, turn the nozzle around and feed the weldrod through the nozzle and weld down the corner.



3. Allow the weldrod to cool down before cutting off the surplus with a spatula on the level floor seams.



4. The external corner should be trimmed off using the X-ACTO square router blade

Notes