

## VERIFICATION OF HEAT WELDED SEAMS

This document refers to the following products:

Products	Size in Metric	Size in Ft.	Installation direction	Seams treatment
Mipolam Products	2 Meter	Approximately 6' 6"	Same	Heat Welded
Mipolam Products	608 X 608 mm	23 15/16" x 23 15/16"	90°	Heat Welded
Taralay Premium	2 Meter	Approximately 6' 6"	Same	Heat Welded
Taralay Impression	2 Meter	Approximately 6' 6"	Same	Heat Welded
Taralay Uni	2 Meter	Approximately 6' 6"	Same	Heat Welded
Nera Contract	2 Meter	Approximately 6' 6"	Same	Heat Welded
Mipolam EL 5 and EL 7	2 Meter	Approximately 6' 6"	Same	Heat Welded
Mipolam EL 5 and EL 7	608 X 608 mm	23 15/16" x 23 15/16"	90°	Heat Welded
Gerflor Recreational	2 Meter	Approximately 4' 11"	same	Heat Welded
Gerflor Recreational	1.5 Meter	Approximately 4' 11"	same	Heat Welded
Taraflex Sport Products	2 Meter	Approximately 4' 11"	same	Heat Welded
Taraflex Sport Products	1.5 Meter	Approximately 4' 11"	same	Heat Welded
Gerflor GTI Control Tiles	635 X 635 mm	24.5" x 24.5"	same	Heat Welded

**Note: This document refers to the following standard:**

- ASTM F1516-13 Standard Practice for Sealing Seams of Resilient Flooring by the Heat Weld Method.

The purpose of this document is to guide the installers, owners and contractors through the verification of a heat welded seam. There are other type of equipment and tools on the market; some of them are excellent and other will fail to perform as expected. The tools we refer to are known to perform well. It is to the installer to ensure that he has the right tools to perform the work as required.

The main goal of this document is to avoid situations as seen on the following pictures:

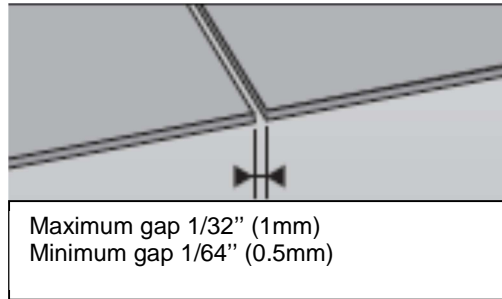


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**FOLLOW THESE STEPS AND USE THE RECOMMENDED TOOLS FOR SUCCESSFUL HEAT WELDS:**

### 1. SEAMS

- The seam must not be gapped more than 1/32" (1mm).
- When the gap is too wide, there will not be any groove and the weld will not be solid enough.



### 2. GROOVING THE SEAMS

The following tools are recommended for proper grooving:

- Turbo groovers are the most recommended:



Master Turbo  
Groover #19



Sport Turbo Groover

<http://turboheatweldingtools.com/shop/>

- The Pico Groover:



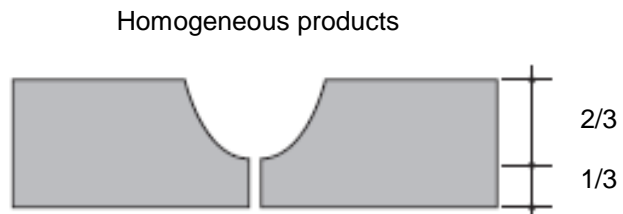
Pico Groover

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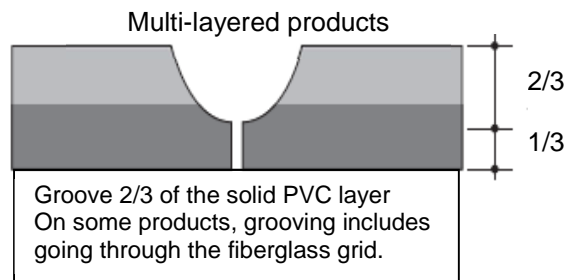
- Leister electric groover



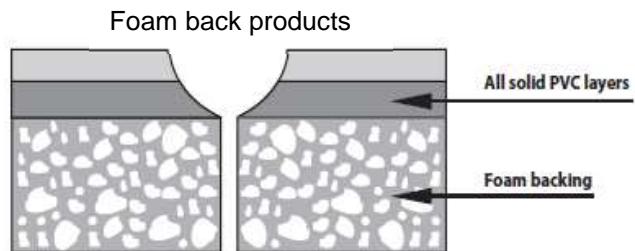
- The depth of the groove must be  $\frac{2}{3}$  of the total thickness of an homogeneous.



- The depth of the groove must be  $\frac{2}{3}$  of the total thickness of a compact heterogeneous.



- For a comfort heterogeneous the groove should reach the top of the foam but must never groove into the foam.



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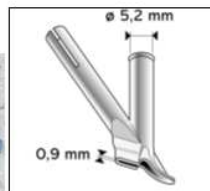
- Typical groove



Maximum width of the groove for commercial flooring: 3.5mm  
Maximum width of the groove for sport flooring: 4.0 mm

### 3. WELDING TIPS

- The Turbo Precision Nozzle is the most recommended tip.



Turbo Precision Nozzle # 22-3

Romus Rapid Nozzle 95027

<http://turboheatweldingtools.com/shop/turbo-precision-nozzle-45mm/>

These different types of tips, and others not illustrated are not recommended to weld Gerflor's products.



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### 4. Welders (Automatic and manual)

- The Chiquita Automatic Welder from Turbo Tools is highly recommended  
<http://turboheatweldingtools.com/shop/chiquita/>



- The Leister Automatic welder when used with the Romus anti-glare nozzle 95253 is recommended.



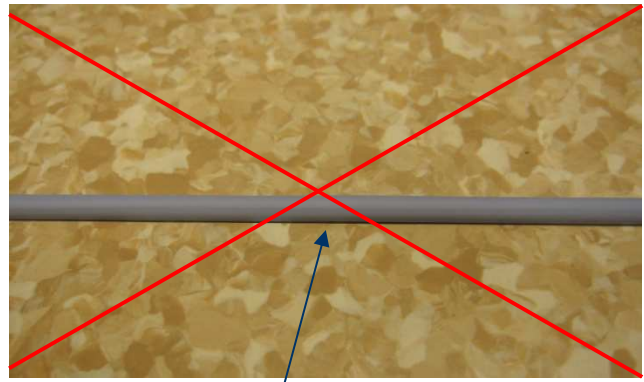
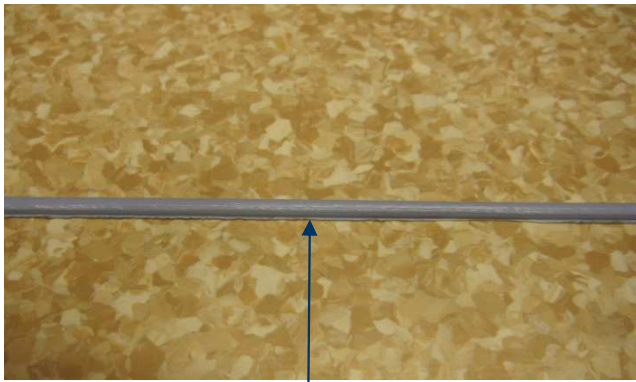
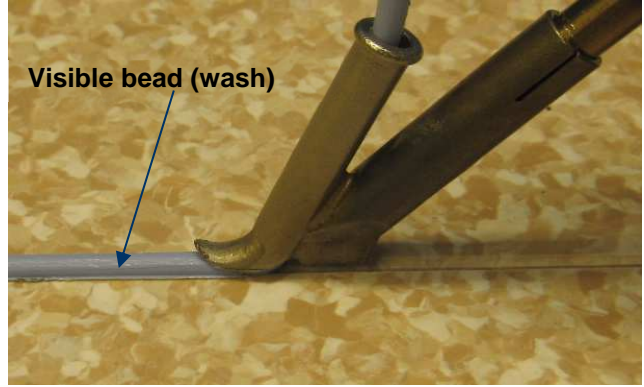
### 4. WELDING

- The temperature of the welding equipment should be verified frequently.
- When welding, a bead on the edges of the rod must be visible at all time; this confirms the proper fusion between the rod and the flooring.



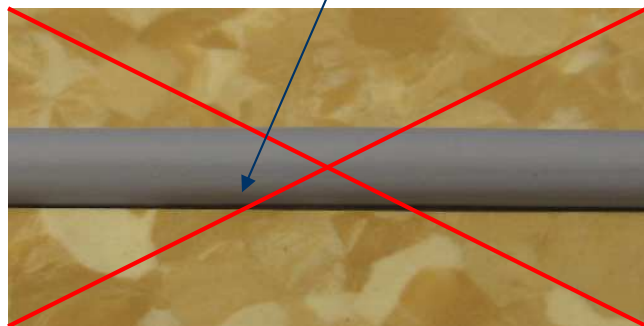
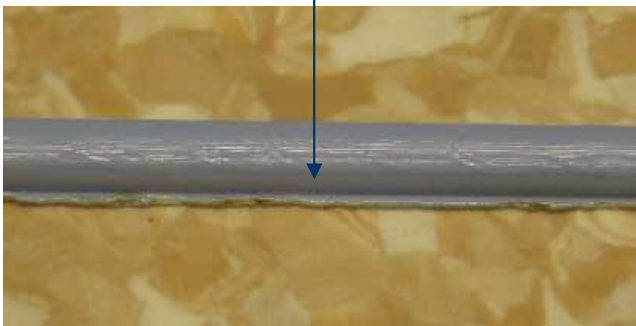
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Examples of heat welds:



**Visible bead**

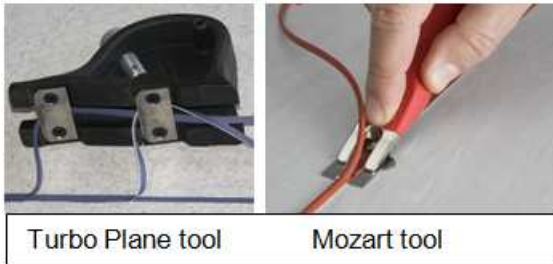
**No visible bead**



## VERIFICATION OF HEAT WELDED SEAMS

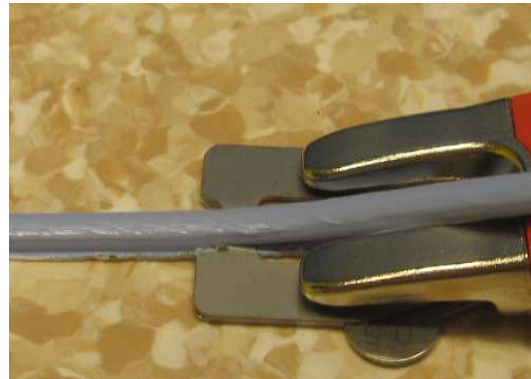
### 5. SKIVING

- Although other tools will work fine, we recommend the Turbo plane tool and the Mozart skiving tool as seen on the following pictures.

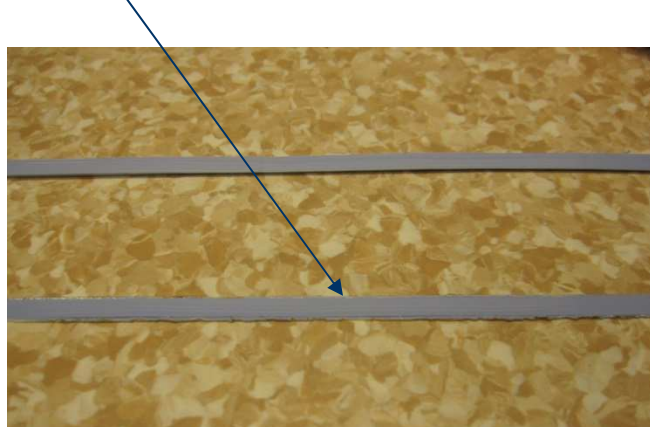
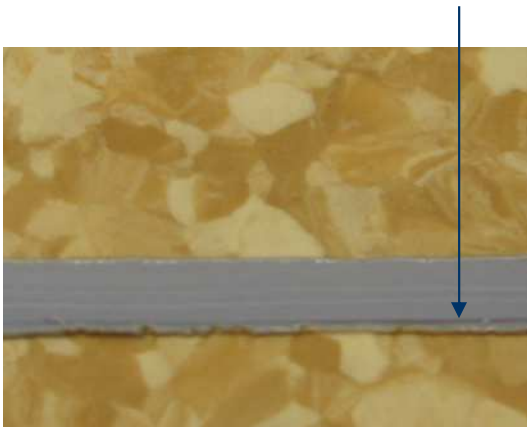


<http://turboheatweldingtools.com/shop/>

- Always let the weld cool down before trimming the rod.
- Two passes need to be done to trim the rod when using the Mozart.
- One pass does the 2 skiving process with the Turbo plane tool.
- The first pass is done using the spacer plate.

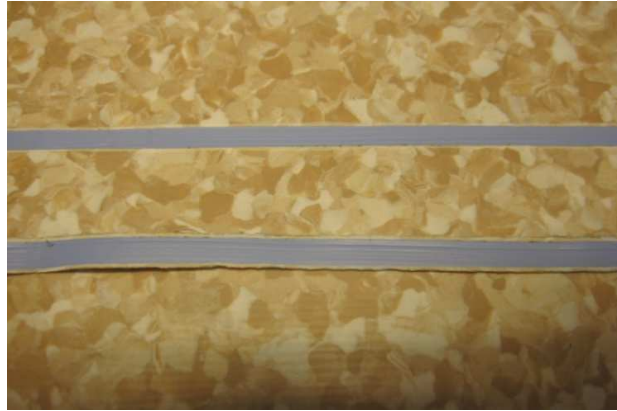


- This is the look the rod should have once the first pass is done



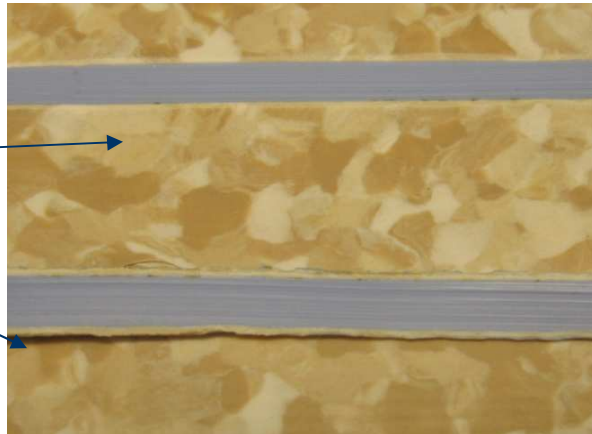
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- The second pass is done without the spacer.
- The finished weld must be equal to the surface of the flooring.

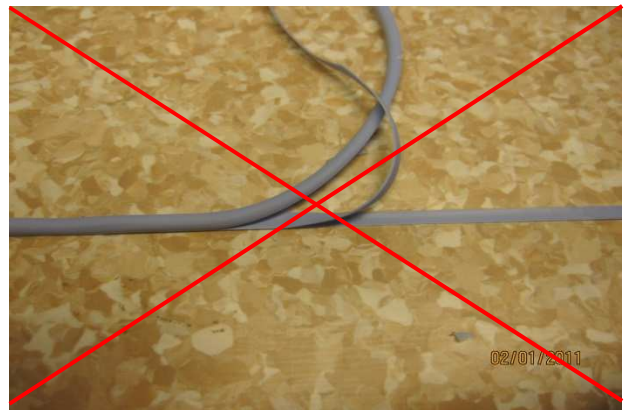
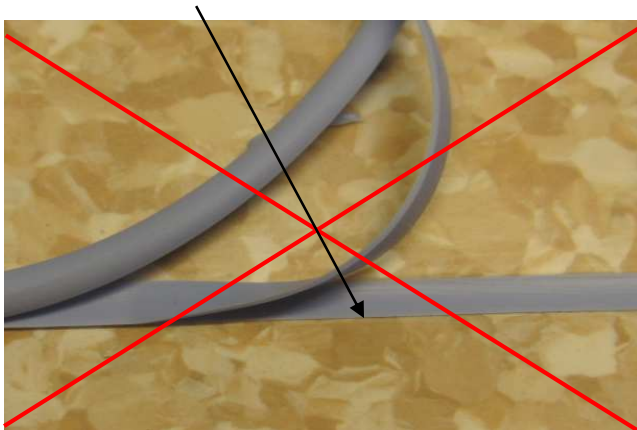


- Weld after the final trim.

- Check for the fusion between the weld and the flooring on the final trim leftover, this will confirm proper fusion.



- On the following pictures we can see that the welded seam looks good but there is no fusion on the leftover of the second pass; therefore the seams will fail over time.





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### 6. TRACTION TEST ON HEAT WELDED SEAMS

This test will confirm the compatibility of the welding rod with the flooring and will confirm the quality of the weld where, when properly done it will break within the weld itself and not on the edges.



For more information, contact Gerflor's Technical Service.