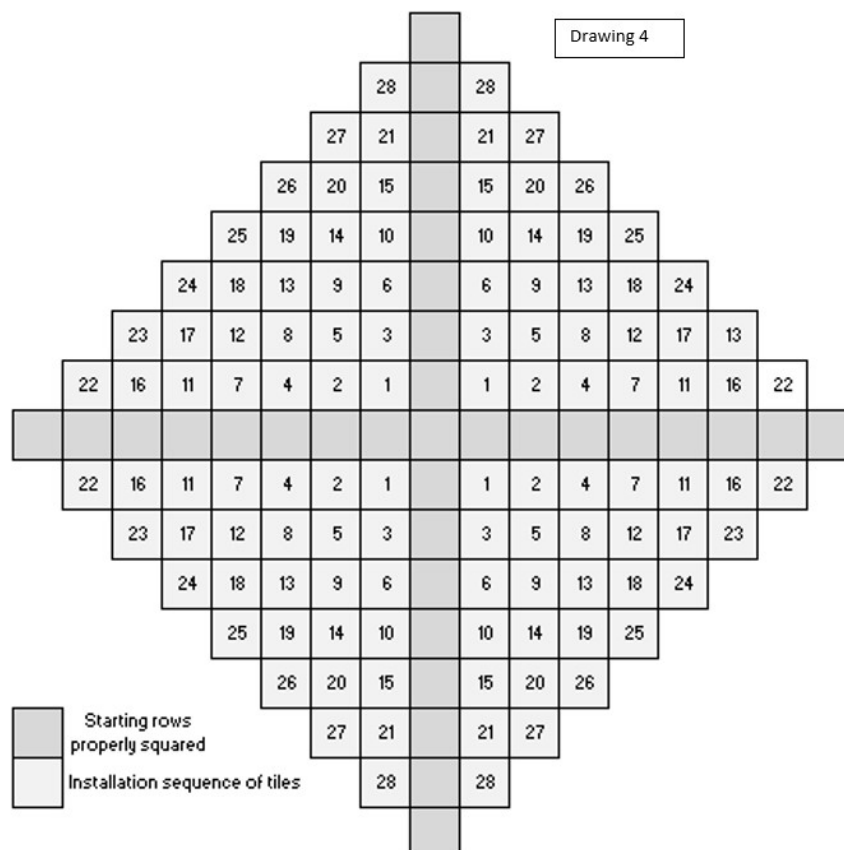


# WARNING: SHOULD THE INSTALLATION SEQUENCE NOT FOLLOWED. THE INSTALLATION WILL FAIL

## IMPORTANT: SEE PAGE 6 OF THIS DOCUMENT

### 3.1 LAYOUT AND INSTALLATION SEQUENCE OF THE GTI CONNECT TILES

**Notes:** Install tiles in the same direction.  
DO NOT mix batches of tiles



## **INSTALLATION INSTRUCTIONS FOR GERFLOR INTERLOCKING TILES**

**This document refers to the following products:**

Product	Size	Thickness	Installation direction	Seam treatment
GTI CONNECT (interlocking)	25.5" x 25.5"	6mm	Same	Heat welded in specific areas
ATTRACTION	25.5" x 25.5"	5mm	Same	Heat welded in specific areas

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

- ACI 302.1R Guide for Concrete Floor and Slab Construction.
- ACI 302.2R Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials
- ASTM F710-11 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- ASTM F1869-16 Standard Test Method for Measuring Moisture Evaporation Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- ASTM F2170-16 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes.
- ASTM F1516-13 Standard Practice for Sealing Seams of Resilient Flooring by the Heat Weld Method.
- ASTM F1482-15 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring
- ASTM F2419-11 Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring
- ASTM F2678-16 Standard Practice for Preparing Panel Underlayments, Thick Poured Gypsum Concrete Underlayments, Thick Poured Lightweight Cellular Concrete Underlayments, and Concrete Subfloors with Underlayment Patching Compound
- ASTM F2873-13 Standard Practice for the Installation of Self-Leveling Underlayment and the Preparation of Surface to Receive Resilient Flooring
- ASTM F3010-13 Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings
- Recommended Work Practices for Removal of Resilient Floor Coverings of Resilient Floor Covering Institute (RFCI).

### **1.1. STORAGE AND HANDLING**

Store TILES on clean, flat, and solid surfaces in a controlled environment. Do not store outside. Stack tiles not higher than 36" with the edges of the tiles flush to one another. Overhanging edges may curl the tiles. Handle all materials carefully and safely. Should the material be stored for a long period, inspect the skids for any damages. Displaced material on a skid or a broken skid will damage the flooring. Be aware and act responsibly.

### **1.2. ACCLIMATION**

Under normal condition, the tiles must acclimate for 24 hours prior to the installation. In some cases, where the flooring may have a long period of time in colder conditions, more time will be required for acclimation.

## **2. SUBFLOOR PREPARATION**

- The General Contractor will supply a smooth, flat concrete finish ready to receive the new resilient sheet flooring in accordance with ACI 302.1R Guide for Concrete Floor and Slab Construction and ACI 302.2R Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials.
- The concrete subfloor will be cured for a minimum of at least thirty (30) days.
- The slab will have a tolerance of 3/16" in a 10' radius.
- Prepare substrate as per ASTM F710 "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring".
- The concrete floor temperature must be maintained at a minimum of 65°F for 48 hours prior, during, and 48 hours after the installation.
- **The concrete slab, new or old, must be tested for moisture. We recommend having the tests performed by a recognized certified floor covering inspector. The ICRI website (International Concrete Repair Institute) has a list of certified technicians for the USA: <http://www.icri.org/Certification/Find-CCSMTTs.asp>**
- The moisture tests must be performed as per ASTM F1869-16 "Standard Test Method for Measuring Moisture Evaporation Rate of Concrete Subfloor Using Anhydrous Calcium Chloride" and/or ASTM F2170-16 "Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes".
- **Substrate shall not exceed 10lbs./1000 sq. ft./24 hrs. per ASTM F1869-16 and not to exceed 92% RH per ASTM F2170-16. pH to range between 6 & 11.**
- Prohibit circulation of other trades in the installation area.
- Before proceeding with any work, inspect the subfloor surface and report in writing to the Project Manager and the General Contractor any visible defects on the surface such as cracks, bumps, rough areas or variations in evenness.
- Check the subfloor for grease, oil, paint, marker, spills, dust or any contamination that may adversely affect the adhesion of the flooring. Clean the subfloor per the existing conditions.
- Sanding of the subfloor will be mandatory in many cases; especially in areas where the subfloor has been contaminated with foreign products. It may be necessary to scarify or bead-blast concrete surface to remove existing adhesives, paint, concrete sealers or other surface applied materials.
- **Curing compounds** of any types must be completely removed by means of sanding, scarification or bead-blasting. Self-dissipative curing compounds must be removed using the same methods.
- The General Contractor shall patch and repair all cracks, voids and other imperfections of concrete with GerPatch patching compound. **Do not use gypsum based patching materials.**
- After completion of sanding, patching and leveling, vacuum or sweep entire surface of concrete to remove loose dust and dirt before starting the installation of material.
- For installation where a **Gypsum Concrete** has been poured, contact Gerflor Technical Services.

### **2.1. SUBFLOORS WITH RADIANT HEATING SYSTEMS**

**IMPORTANT: Interlocking tiles have to be completely glued down when installed over radiant heating system. Gerfix TPS+ adhesive and Gerfix LVT & Plank Spray adhesive are recommended for such installation.**

Gerflor Interlocking tiles can be installed over subfloors with radiant heating systems. To ensure proper installation and enable proper adhesion, respect the following conditions:

- In all cases, it is necessary to respect the curing time of the concrete slab.
- Before the installation, the radiant heating system must have been turned on for at least 4 weeks to stabilize the moisture content of the concrete slab and to avoid any moisture peak when the system will be in service after the installation of the flooring.
- A certified technician should turn on the system as per the manufacturer recommendation.
- The temperature must be kept at its maximum of 85°F for 8 days prior to the installation of the floor covering.
- At all time, the maximum temperature of the concrete slab shall not exceed 85°F.
- To install on a subfloor with a radiant heating system, the system has to be turned off 48 hours before, during and 72 hours after the installation. Always verify that the room temperature is not less than 65°F (18°C) during that period of time.
- The heating system should be turned on gradually only 72 hours after the installation.
- Turning on the heat gradually will allow the substrate and the flooring to adapt to the temperature change together.
- A sudden temperature change could result in adhesion problems.
- **Moisture tests for subfloors with Radiant Heating Systems shall not exceed 75% RH per ASTM F2170-16 and 3-lbs./ 1000sq. ft./24hrs. per ASTM F1869-16 when using Gerfix TPS + adhesive.**

Settings of the radiant heating system prior and during the installation:

28 days to 2 days prior at 85°F	48 hours prior to the installation turned-off	Turned-off during the installation	72 hours after installation the system remains turned-off	Gradually turn on the system
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## 2.2. MATERIAL INSPECTION

- Pallets are clearly marked with batch numbers and the product should be checked for match before installing.
- Inspect all materials carefully to verify that correct colors, lot number, patterns, quality and quantities have been shipped as ordered. Do not install, cut, or fit any material that has visible defects.

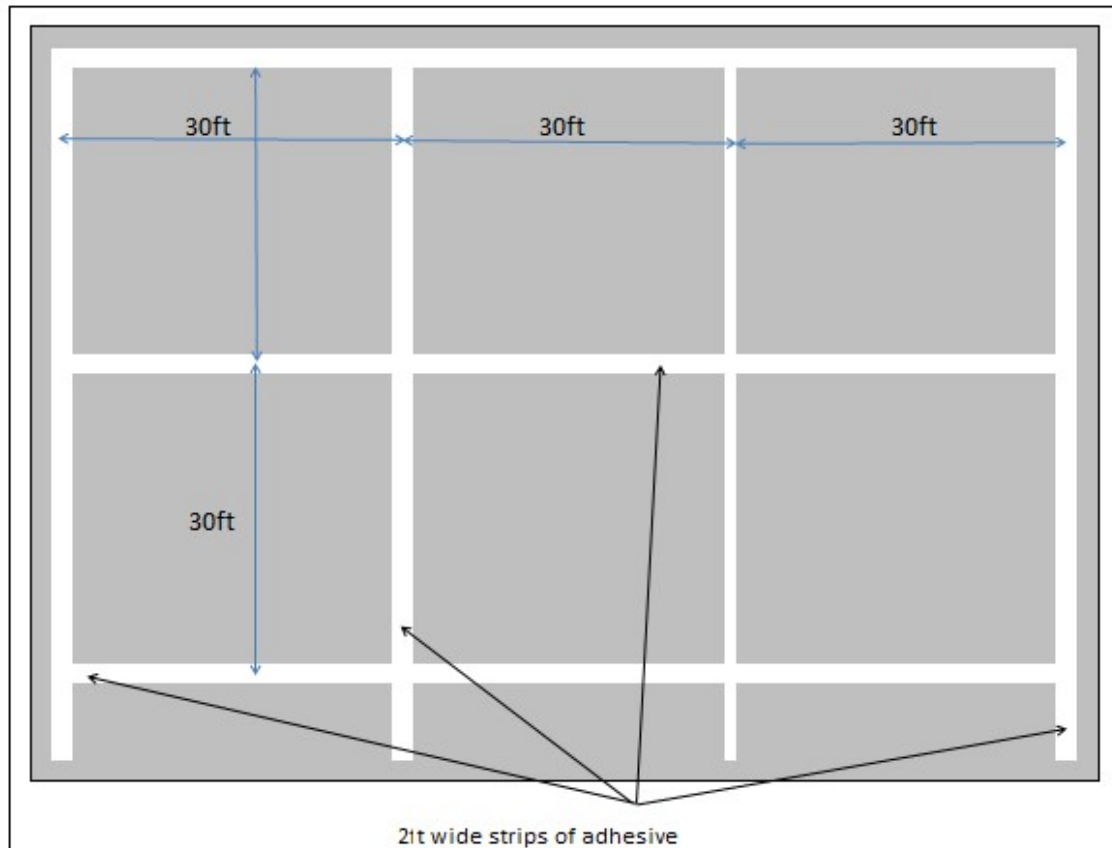
**A contractor that installs material that has visible defects or damage without prior consent of Gerflor deems the product acceptable for installation and therefore accepts full responsibility for said material.**

## 3. INSTALLATION OF GERFLOR INTERLOCKING TILES

**Note: Although they are installed loose-laid, some areas will need adhesive to secure the tiles. See drawings below:**

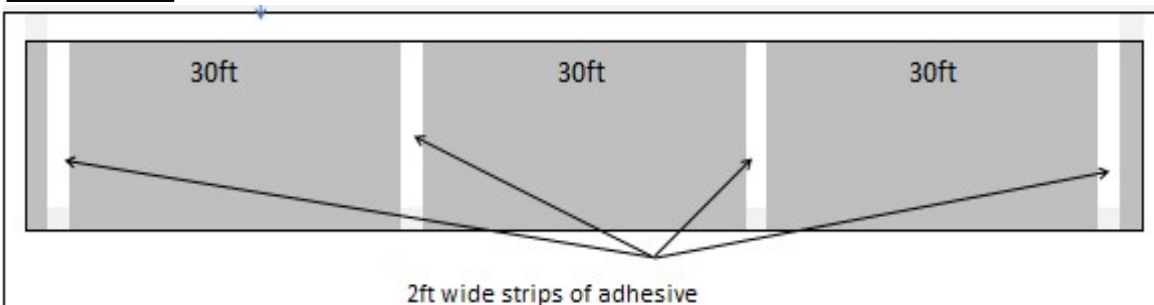
- **For surfaces where pallet jack and/or fork lift will be used, adhesive must be applied every 30 linear feet in both directions.**

Drawing 1



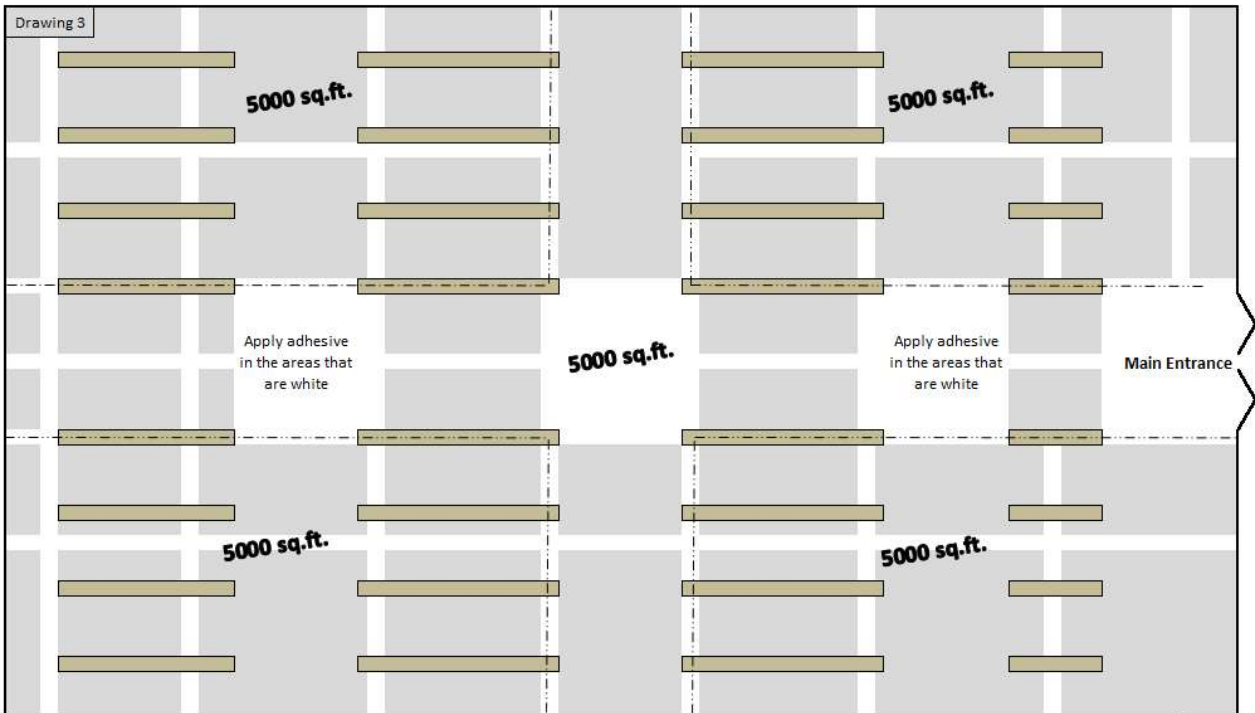
- For any long corridors, the GTI tiles must be glued down every 25-30 ft. (12-15 Tiles)

Drawing 2



- For areas greater than 5000 sq. ft. we recommend to glue down or double face tape specific areas of the surface:
  - A gap of ¼" minimum must be left on the perimeter of the walls.
  - Tiles must be heat-welded where different lots are meeting (dotted lines).
  - The white areas in drawing 3 have to be glued with Gerfix LVT and Plank Spray adhesive.
  - DO NOT mix batches of tiles.

- The dotted lines are showing the junction between different lots where it will need to be heat-welded. (Approximately 5000 sq. ft. per lot)



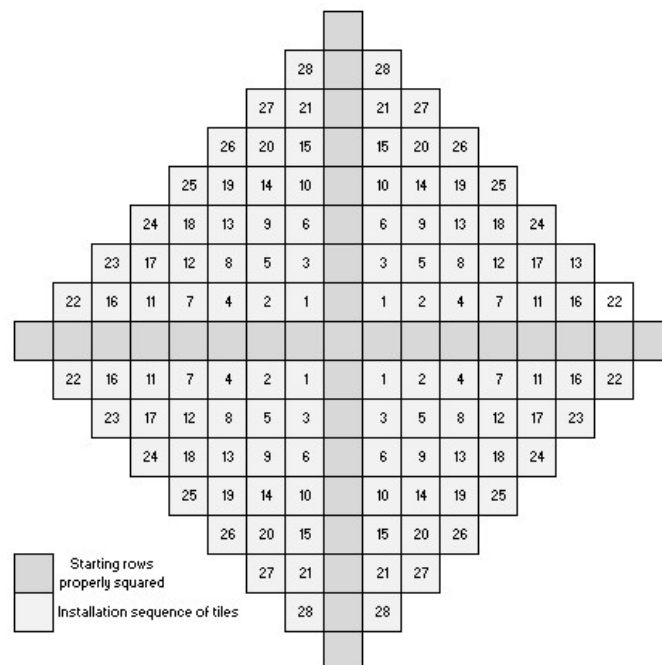
### 3.1 LAYOUT AND INSTALLATION SEQUENCE OF THE GTI CONNECT TILES

#### Notes:

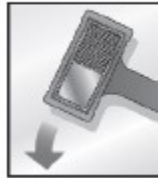
Install tiles in the same direction.

DO NOT mix batches of tiles

Follow the installation sequence to avoid any failures.



- Chalk the center lines of the work area in both directions so that one line is parallel to the length of the room and that the second line is on a 90° angle to the first line.
- Position center lines to allow the perimeter tiles to be  $\geq$  to  $\frac{1}{2}$  tile.
- Use a composite dead blow hammer to interlock the tiles properly.



- Keep the tiles in the same direction while installing.

### 3.2 CUTTING THE PERIMETERS

- Use a Bullet cutter to ease the process:

**Bullet Tools Cutter ITEM # GF91-0026**



### 3.3 RECOMMENDED ADHESIVES:

- **GERFIX LVT & PLANK SPRAY ADHESIVE**

- Use as shown on Drawings 1, 2 and 3 where some areas need to be glued for stability purpose.
- Follow usage recommendation for the adhesive.

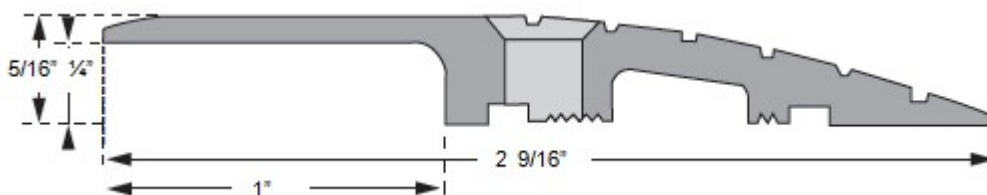
- **GERFIX TPS+ ADHESIVE**

- Use as shown on Drawings 1, 2 and 3 where some areas need to be glued for stability purpose.
- Follow usage recommendation for the adhesive.

- **GERFLOR T-111 POLYURETHANE ADHESIVE**

- Use in areas that are subject to be wet (i.e. commercial refrigerators, reception areas, etc.)
- Follow usage recommendation for the adhesive.

### 3.4 Threshold H202 model type





#### 4. HEAT WELDING BETWEEN BATCHES of GTI CONNECT (Refer to our document: Verification of Heat Welded Seams)

##### 4.1. ROUTING:

- Use an electric routing machine for major installation such as Leister or equal, approved by manufacturer.
- The Master Turbo Groover is a great tool and is highly recommended to groove our products.  
<http://turboheatweldingtools.com/shop/>
- The Pico groover is a great tool to groove our products.
- The use of a straight edge and hand groover will provide good results for smaller installations. Maintain a uniform width and depth of groove for a uniform welded seam.
- **Route no deeper than the 2mm wear layer.**



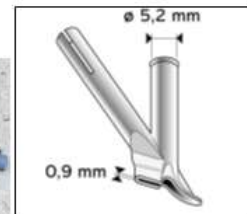
##### 4.2. MANUAL WELD:

**Note: Always practice on a scrap piece of material first to assure proper temperature and speed. Welding tests and adjustment of welder must be done every day there is welding to be done on the job site. Doing so will prevent failures.**

- Groove only 16-24 hours after the installation.
- This must be done with a heat welding gun with variable temperature control and a speed weld nozzle by Leister or equal, approved by manufacturer.
- Turbo Precision Nozzle # 22-3 is highly recommended as well for proper welding.



Turbo Precision Nozzle # 22-3



Romus Rapid Nozzle 95027

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

- Nozzle size is 5mm as the Romus Rapid Nozzle 95027.
- The use of a non-recommended tip will jeopardize proper welding and could damage the flooring.
- Always keep the tip clean.

##### 4.3. WELDING ROBOT (REQUIRED ON LARGE PROJECT)

**Note: Always practice on a scrap piece of material first to assure proper temperature and speed. This should be done every day there is welding to do on the job site. Doing so will prevent failures.**

- Do not let the robot operate without surveillance.
- Turbo Welding Gun #25 is the recommended welding robot as it comes with the right welding tip.

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



**Note: Should another type of welding robot be used, such as Leister robot, care must be taken in the choice of tip as for most cases the opening of the tip is more than 2mm. This could damage the flooring and lead to a seam failure.**

- The recommended tip for the Leister Robot is Romus 95253 2mm.

**WARNING:** Do not weld the flooring using the Leister robot without the proper tip.



- Verify not to reduce the power with electrical cords that are too long.
- Frequently verify the weld.
- The ambient temperature, open windows and doors and other electrical equipment plugged in the same electrical outlet may influence proper welding.

**Notes:**

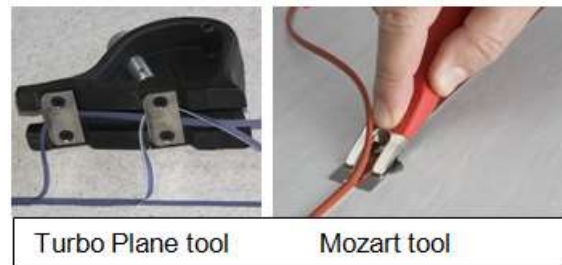
- For any type of installation, do not heat weld resilient flooring for a minimum of 16 to 24 hours after the material has been placed into the adhesive.
- Refer to ASTM F1516-13 "Standard Practice for Sealing Seams of Resilient Flooring by the Heat Weld Method".



#### 4.4. TRIMMING WELDED ROD

**Note:** Trimming is done once the welding rod and material have completely cooled.

- **Trimming must be done in two passes.**
- The Turbo Plane tool is recommended and will trim in one pass. <http://turboheatweldingtools.com/shop/>
- Use trimming tools sharpen in the middle only, such as the Mozart trimmer.
- This type of trimmer will not damage the flooring.
- The first trim has to be done with the thickness guide.
- The second trim has to be done with the trimmer only.
- Always verify the trimmed weld to ensure that the welding rod is bonded properly and is flush with the top wear layer.



#### 5. ONCE THE INSTALLATION IS COMPLETED

- Perform a visual inspection of the project.
- Verify every welded seam.
- Repair every imperfection before leaving the project.
- Make sure that every vertical obstacle such as doorframes is well trimmed and sealed with a silicone sealer or an equivalent product.

For any information, please refer to Gerflor Technical Services.



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