

TARAFLEX DRY-TEX™ SYSTEM INSTALLATION INSTRUCTIONS

This document refers to the following products:

| Product | Thickness | Width | Installation Direction | Seam Treatment |
|---------------------------------------|-----------|----------------------|------------------------|----------------|
| Taraflex Sport M Plus Dry-Tex™ | 7 mm | Approximately 4' 11" | Same | Heat Weld |
| Taraflex Sport M Performance Dry-Tex™ | 9 mm | Approximately 4' 11" | Same | Heat Weld |
| Gerpur Urethane Adhesive | | | | |
| GerPatch Patching Compound | | | | |

1. STANDARDS: The guidelines detailed in this document are based upon industry accepted installation recommendations and reference the following standards:

- 1.1. ACI 302.1R Guide for Concrete Floor and Slab Construction.
- 1.2. ACI 302.2R Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials
- 1.3. ASTM F710-17 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
- 1.4. ASTM F1869-16 Standard Test Method for Measuring Moisture Evaporation Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- 1.5. ASTM F2170-16 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes.
- 1.6. ASTM F1516-13 Standard Practice for Sealing Seams of Resilient Flooring by the Heat Weld Method.
- 1.7. ASTM F1482-15 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring
- 1.8. ASTM F2419-11(2017) Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring
- 1.9. 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
- 1.10. ASTM F2873-13 Standard Practice for the Installation of Self-Leveling Underlayment and the Preparation of Surface to Receive Resilient Flooring
- 1.11. ASTM F3010-13 Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings
- 1.12. ASTM F3191-16 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring¹
- 1.13. Recommended Work Practices for Removal of Resilient Floor Coverings of Resilient Floor Covering Institute (RFCI).

2. GENERAL INFORMATION

- 2.1. **Taraflex Dry-Tex system** is formulated to withstand high moisture conditions. To perform as designed, the concrete **must be properly prepared to create a contaminate free and porous substrate.**

- 2.2. **The Taraflex Dry-Tex system is not designed to withstand hydrostatic or osmotic pressure.**
- 2.3. The guidelines offered within this document are not intended to be all inclusive. Only qualified, professional flooring technicians experienced in the field of resilient flooring should proceed with this installation system.
- 2.4. It is recommended to mechanically prepare the concrete via grinding or bead blasting the surface to achieve a clean and porous substrate.
- 2.5. The Taraflex Dry-Tex system does not require moisture testing as a prerequisite for installation. However, if contractually obligated, moisture testing must be performed in accordance with ASTM F710-17.
- 2.6. Taraflex Dry-Tex **may not** be installed over **gypsum** substrates.
- 2.7. Where patching is required to correct minor subfloor deviations/deficiencies use only **GerPatch**.
- 2.8. If a self-leveling material is required to achieve a flat, smooth and/or level surface, the use of a moisture tolerant, cementitious product that meets ASTM F2873-13 is required.
- 2.9. **Do not install material that has visible defects or damage. A contractor that installs material that has visible defects or damage assumes responsibility for the damaged material.**

3. STORAGE AND HANDLING

- 3.1. Rolls may be shipped laying down. If shipped in this manner, place them in an upright position on a clean, flat, solid surface in an interior, controlled space. Do not store rolls laying down for extended periods.
- 3.2. Store rolls of Sport products on clean, flat, and solid surfaces in a controlled environment. Place rolls in an upright position. Do not stack rolls on top of each other.
- 3.3. Follow sequence number while storing. It will be easier to follow the sequence while unrolling.
- 3.4. If the material will be stored for an extended period, remove the rolls from the skids and secure them upright as detailed above. Rolls that are displaced due to a broken skid or left on their side for an extended period will damage the flooring.
- 3.5. Caution should be used in the moving and lifting of rolls. Allow for appropriate equipment and manpower to safely move materials. **Work safe and always follow the relevant safety protocols for the activity you are engaged in.**
- 3.6. **Do not store any material outdoor.**

4. JOB SITE CONDITIONS

- 4.1. The rolls and adhesive must be acclimated in the installation area for 24 hours prior to installation. Allow additional acclimation time if the flooring has been exposed to excessive cold or hot temperatures for an extended period.
- 4.2. The concrete floor temperature shall be a minimum of 65°F before laying out rolls.
- 4.3. Areas to receive flooring must be fully enclosed with the permanent HVAC system operational and set to a minimum of 65°F or a maximum of 85°F for a minimum of 48 hours prior to, during, and then maintained after the installation.
- 4.4. Prepare substrate in accordance with ASTM F710-17 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring. Floors should be smooth, permanently dry, clean and free

of all foreign materials such as dust, wax, solvents, paint, grease, oils, old adhesive residue, curing compounds and sealers.

- 4.5. Areas to receive flooring should have adequate lighting during all phases of the installation.
- 4.6. Installation should not begin until all trades; painting, ductwork, drywall, etc. are complete. Once the installation begins, the area must be secured from all other trades and foot traffic.

5. SUBFLOORS – CONCRETE

- 5.1. The concrete must have been placed 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.
- 5.2. Allow concrete to cure for a minimum of twenty-eight (28) days.
- 5.3. The slab flatness will have a tolerance of 1/8" in a 10' maximum plane variation.
- 5.4. 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 flatness.
- 5.5. Check the subfloor for grease, oil, paint, marker, spills, dust or any contamination that may adversely affect the adhesion of the flooring. Mechanically clean the subfloor per the existing conditions. Petroleum products such as cutting oils and hydraulic fluid will penetrate the concrete and become a bond breaker. Areas affected by these oils must be bead-blasted to remove all contaminated concrete.
- 5.6. Mechanically remove any existing adhesive residues, paint over spray, sweeping compounds, dirt, debris or anything that may act as a bond breaker from the surface of the concrete. Where concrete sealers or curing compounds are present they must be completely, mechanically removed via grinding, bead-blasting, Diamabrush <http://www.diamabrush.com/> or similar. Sanding is not sufficient to completely remove curing compounds.
- 5.7. **The concrete slab, new or old, when required should be tested for moisture per ASTM F710-17. We recommend having the tests performed by a recognized engineering firm. The ICRI website (International Concrete Repair Institute) has a list of certified technicians for the USA: <http://www.icri.org/Certification/Find-CCSMTTs.asp>**
- 5.8. The moisture tests, when required should 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".
- 5.9. Where the concrete has been hard-troweled to create a burnished finish, porosity should be determined through the water drop test as detailed in ASTM F3191-16 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring.
- 5.10. To minimize the potential for telegraphing, all dormant or non-moving cracks should be repaired with a rigid, two-component, polyurethane crack injection product. Moving joints such as expansion or isolation joints must be honored up through the installation in accordance with ASTM F 710-17.

5.11. Substrate moisture and pH levels shall not exceed:

| | | |
|--------------------------|--|---|
| | Concrete slab with an effective moisture vapor barrier | Concrete slab with radiant heating system |
| Gerpur Urethane adhesive | 25-lbs / 100% RH | Do not install |

5.12. Sweep and vacuum the area following mechanical preparation to remove all dust and debris.

5.13. Where patching is required to correct minor subfloor deviations/deficiencies use only **GerPatch** and allow to cure from 4 to 24 hours depending on the type of adhesive used. Sand if necessary to smooth. If the use of a moisture tolerant, cementitious self-leveler is required, it must meet ASTM F2873-13.

5.14. Refer to ASTM F710-17 for additional considerations on concrete substrates that are to receive resilient floor coverings.

6. SUBFLOORS – CONCRETE WITH RADIANT HEATING SYSTEMS

6.1. Do not install Taraflex Dry-Tex system over a radiant heating system as this could affect the performance of the heating system over time.

7. SUBFLOORS – GYPSUM BASE SUBSTRATE

7.1. Taraflex Drytex is not recommended on this type of substrate.

8. SUBFLOORS – WOOD

8.1. Do not install over OSB, particle board, chipboard, lauan or composite type underlayments.

8.2. Wood subfloors must have a minimum of 18” of cross-ventilation space between the bottom of the joist and the ground.

8.3. Any exposed earth crawl space must be sealed with a polyethylene moisture barrier.

8.4. Wood subfloors must meet local and national building codes, trade associations (e.g. The APA – The Engineered Wood Association) that offers guidelines to meet the building codes.

8.5. Always refer to ASTM F1482-15 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring.

8.6. Any subfloor that has a single layer must be covered with a ¼” or more of APA approved underlayment plywood to achieve a total thickness of 1 inch minimum.

9. SUBFLOOR PREPARATION

9.1. 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.

9.2. The concrete subfloor will be cured for a minimum of at least thirty (30) days.

9.3. The slab flatness will have a tolerance of 1/8” in a 10’ maximum plane variation.

9.4. Prepare substrate as per ASTM F710-17 “Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring”.

- 9.5. The concrete floor temperature must to be maintained at a minimum of 65°F for 48 hours prior, during, and 48 hours after the installation.
- 9.6. **The concrete slab, new or old, when required should be tested for moisture according to ASTM F710-17. We recommend having the tests performed by a recognized engineering firm. The ICRI website (International Concrete Repair Institute) has a list of certified technicians for the USA: <http://www.icri.org/Certification/Find-CCSMTTs.asp>**
- 9.7. The moisture tests, when required should 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 moisture levels shall not exceed:**

| | Concrete slab with an effective moisture vapor barrier | Concrete slab with radiant heating system |
|--------------------------|--|---|
| Gerpur Urethane adhesive | 25-lbs / 100% RH | Do not install |


- 9.8. Prohibit circulation of other trades in the installation area.
- 9.9. 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.
- 9.10. 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.
- 9.11. Prohibit circulation of other trades in the installation area.
- 9.12. 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.
- 9.13. **Curing compounds** of all types must be completely removed by means of sanding, scarification or bead-blasting. Self-dissipative curing compounds must be removed using the same methods.
- 9.14. 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.**
- 9.15. 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.

10. ACCLIMATION

- 10.1. The rolls and adhesive must be acclimated in the installation area for 24 hours prior to installation. Allow additional acclimation time if the flooring has been exposed to excessive cold or hot temperatures for an extended period.
- 10.2. The concrete floor temperature shall be a minimum of 65°F before laying out rolls.
- 10.3. Areas to receive flooring must be fully enclosed with the permanent HVAC system operational and set to a minimum of 65°F or a maximum of 85°F for a minimum of 48 hours prior to, during, and then maintained after the installation.

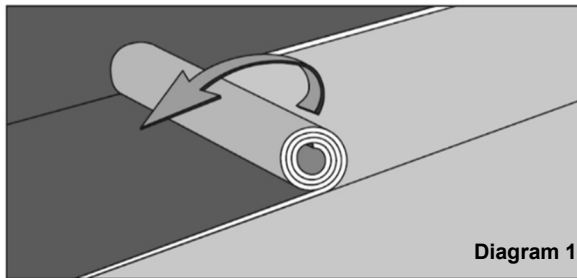
- 10.4. Keep the identification tags of each roll and verify that the rolls are being installed in the same direction and in sequential order.
- 10.5. Unroll flooring following the roll number sequence.
- 10.6. Mark a control/starting line. Unroll the first roll along this line.
- 10.7. Unroll successive rolls leaving a minimum ¼" gap left between sheets.
- 10.8. Allow material to relax overnight before proceeding with the installation.

11. INSTALLATION OF SHEETGOODS

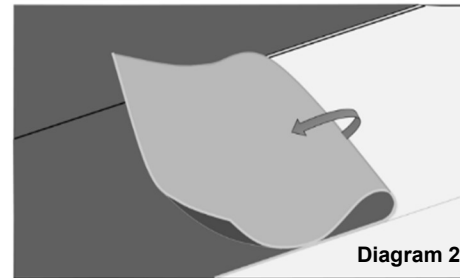
- 11.1. **Per the previous section (Section 10 – Acclimation), the material must acclimate and properly relax prior to installation.**
- 11.2. For areas where bleachers will be used, please refer to the **Gerflor BleacherBlok Installation Instructions**.
- 11.3. Reposition sheets to allow for no more than a 1/32" gap between them to allow for proper heat welding. **Wider gaps will compromise the integrity of the weld.**
- 11.4. Material that may have minor edge damage or distortion must be trimmed and removed prior to installation of the sheets.
- 11.5. Avoid cross/head seams if possible. Place these seams in areas exposed to the least amount of traffic or where Game Line Paint will be applied. Roll lengths typically allow for head seams to be placed outside the field area.
- 11.6. Leave material 4"-6" longer on each end for trimming after placement. *Do not net cut material to the final trim until the application of the adhesive.*
- 11.7. Before applying the adhesive, ensure gap between the sheets to a uniform 1/32" along the entire length. This gap will act as a guide for the groover.
- 11.8. **Gerflor Gerpur urethane adhesive** is the **only** approved adhesive for use with the Dry-Tex system. Any other adhesive will void the warranty against moisture. Follow the guidelines indicated on the Technical Data Sheet of the Gerpur Adhesive.
 - 11.8.1. Gerpur is a moisture-cured urethane and as such cures in response to ambient moisture and the RH condition of the concrete. Adhesive working time will vary based upon these conditions
- 11.9. Trowel the adhesive onto the substrate using a 1/16" x 1/16" x 1/16", square notched trowel. Coverage of 180 – 225 sq. ft. per US gallon. Proper adhesive coverage is required to effectively guard against moisture vapor. As such, it is imperative to use the proper trowel as well as maintaining the proper notch size over the course of the entire floor. Replace trowel blades often. **Inadequate application of adhesive will void the warranty.**

- 11.10. Beginning from the control\starting line and working outward, fold the sheets halfway back along the width (fold back method) or roll the sheets halfway back (roll back):

The roll back (Diagram 1) or fold back (Diagram 2) methods are preferred to the lengthwise fold method. Some areas, such as perimeter pieces, will dictate the lengthwise fold method.

Roll back method



Fold back method (along width)



- 11.11. Working with one roll at a time, apply the Gerpur adhesive to the subfloor. Always start gluing from the rolled or folded edge first – glue working away from the roll or fold.
- 11.12. Avoid overlapping adhesive or creating a buildup at all start and stop points. Excess adhesive can leave a ridge that will telegraph into the finished floor. Glue and roll the entire run (wall to wall) before proceeding to the next run of material. Use denatured alcohol to immediately clean up any adhesive that gets on the vinyl surface.
- 11.13. Depending on how the material was pulled back, rolled or folded, carefully feed the material (fold back method) or roll the material (rollback method) into the wet adhesive. **There is no open time for the adhesive prior to placing the sheet vinyl into the glue.**
- 11.14. Immediately roll the vinyl with a three section, 100-lb. roller applying the following rules:
 - 11.14.1. Roll across the **width** of the material first.
 - 11.14.2. Rolling must be performed slowly and deliberately.
 - 11.14.3. Each roller pass should overlap the previous pass by 6”.
 - 11.14.4. **Never stop** the roller or leave it remain resting on the vinyl as either situation could lead to adhesive displacement.
 - 11.14.5. Roll the length **only after the width has been completely rolled.**

12. Adhesive Tips:

- 12.1. To ensure uniform adhesion of the entire surface, only spread a workable amount of adhesive at one time.
- 12.2. Maintain a uniform spread rate. Replace trowel (or trowel blade) with every pail used.
- 12.3. It is imperative that the installers familiarize themselves with the adhesive before starting the installations.
- 12.4. After applying the adhesive, unroll or unfold the flooring into the still wet adhesive.
- 12.5. Due to the lack of initial grab by the Gerpur adhesive, it may be necessary to weight down end seams, and/or wall cuts until the adhesive has cured. The use of clean, flat materials is recommended. Care should be taken to avoid damage to the vinyl surface.
- 12.6. When starting a sheet, it must be completed. Leaving half sheets unadhered at the end of the day will lead to telegraphing at the line where gluing resumes the next day.

- 12.7. Care must be taken to avoid flopping the vinyl sheets into the adhesive as this may cause air to become entrapped.
- 12.8. Roll the flooring in the width first and then the length to ensure adhesive transfer and to evacuate all air that can lead to bubbles. Optimally there should be an individual tasked solely with this responsibility.
- 12.9. Continually check the flooring for bubbles. To verify there are no bubbles, look down and across the flooring from both a standing and prone position with the lights on and off. The use of a light source at floor level can be helpful in finding any air pockets or bubbles.
- 12.10. When placing the flooring into the adhesive maintain the width and uniformity of the gap. The gap should not exceed 1/32" (the thickness of a credit card) and may be less depending on the guide of the groover to be used.
- 12.11. Prohibit traffic for a period of 24 hours, and 72 hours for rolling loads. The use of Masonite (1/4" minimum) is required to disperse any point loads that could lead to adhesive displacement.

Following the above steps is of the utmost importance for a successful installation that will resist high moisture levels and be serviceable over the life of the floor.

13. HEAT WELDING

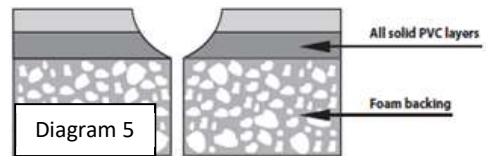
13.1. ROUTING:

- 13.1.1. For electric routing, Leister or equal may be used.
- 13.1.2. For hand grooving, Gerflor highly recommends the following:
- 13.1.3. Using the selected electric or hand groover, create a groove that is 90% the total thickness of the solid vinyl layers or slightly above the foam backing layer. **Route the solid PVC layers of the sport flooring only...do not route into the foam layer.**



13.2. ROUTING TIPS

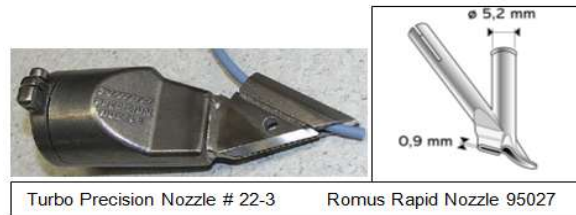
- 13.2.1. Set the depth of the groover on scrap material first before deploying the unit on the finished floor. Adjustments to the groover should be performed daily and always on scrap material (Diagram 5).
- 13.2.2. When grooving, it is highly recommended that the installer practice on scrap material until they are comfortable with the use of the selected groover.
- 13.2.3. Ensure that the groover blades are of the correct size and sufficiently sharp to create a clean and uniform groove.



13.3. MANUAL WELD

13.3.1. Verification of welder temperature and speed must be performed daily. Confirm temperature and speed by practicing on scrap material first before deploying the welder to the finished floor. Doing so will prevent failures.

13.3.2. Grooving and welding may proceed after the adhesive has been permitted to cure a minimum of 16 hours.



13.3.3. Use a heat welding gun with variable temperature control and a speed weld nozzle by Leister or equal.

13.3.4. Turbo Precision Nozzle # 22-3 <http://turboheatweldingtools.com> or Romus Rapid Nozzle 95027 (5mm) is also highly recommended for proper welding.

13.3.5. The use of a non-recommended tip may jeopardize proper welding and could damage the flooring.

13.3.6. Always remember to keep the nozzle tip clean and free of debris.

13.4. AUTOMATIC WELDERS

13.4.1. Automatic welders are highly recommended particularly on large projects.



13.4.2. Verification of welder temperature and speed must be performed daily. Confirm temperature and speed by practicing on scrap material first before deploying the welder to the finished floor. Doing so will prevent failures.

13.4.3. Do not let the robot operate unattended.

13.4.4. Turbo Welding Gun #25 is the recommended welding robot as it is supplied with the correct welding tip. <http://turboheatweldingtools.com>

13.4.5. Should another type of welding robot be used, such as the Leister robot, care must be observed in nozzle selection as it is common for tip openings to be wider than 2mm (see photograph). A wider opening can damage the flooring and lead to a seam failure. If a Leister Robot is used, Gerflor recommends the use of Romus 95253 2mm Unifloor Anti Glaze Nozzle.



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

13.5. Heat Welding Tips:

13.5.1. Avoid the use of long extension cords as they can lead to voltage drops that could affect the weld integrity.

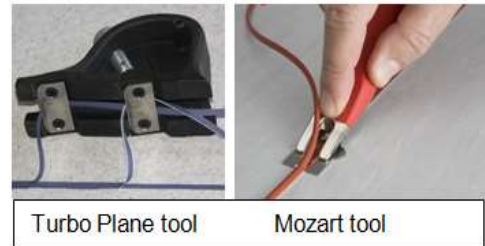
13.5.2. Where possible, have a dedicated electrical source for the welder. Having multiple electrical devices powered off the same outlet could also lead to voltage drop.

13.5.3. The ambient temperature as well as open windows and doors can affect welding with regard to the temperature and speed of the welder.

- 13.5.4. Regularly verify the integrity of the weld. For help in confirming weld integrity, refer to Gerflor document Verification of Heat Welded Seams:
<http://www.gerflor.com/media/virtual-library/installation-guidelines-sport/805-gerflor-installation-guidelines-sport-verification-of-hot-welded-seams-en.pdf>
- 13.5.5. Refer to ASTM F1516-13 "Standard Practice for Sealing Seams of Resilient Flooring by the Heat Weld Method" for additional information.

13.6. TRIMMING WELDED ROD

- 13.6.1. Trimming is done once the welding rod and material have **completely cooled**.
- 13.6.2. Trimming is done in two passes with the Mozart tool.
- 13.6.3. The Mozart tool utilizes a blade that is sharp only at the center thereby preventing damage to the flooring beyond the weld.
- 13.6.4. Using the Mozart tool, make an initial pass with the thickness gauge in place.
- 13.6.5. Gerflor does not recommend the use of a quarter moon skiving tool to trim the weld.
- 13.6.6. After completing the first pass, a final pass must be made after the weld has completely cooled. Make the final pass without the thickness gauge deployed using the trimmer blade only.
- 13.6.7. Alternatively, the **Turbo Plane**: <http://turboheatweldingtools.com> may be used to trim the weld in one pass.
- 13.6.8. Verify weld integrity to ensure that the welding rod is bonded properly and is flush with the top wear layer. Refer to Gerflor document **Verification of Heat Welded Seams**:
<http://www.gerflor.com/media/virtual-library/installation-guidelines-sport/805-gerflor-installation-guidelines-sport-verification-of-hot-welded-seams-en.pdf>



Turbo Plane tool Mozart tool

14. ONCE THE INSTALLATION IS COMPLETED

- 14.1. Clean the area to verify there are no imperfections, adhesive residue, scuff marks, etc. Verify every welded seam.
- 14.2. Make sure that the vinyl is well trimmed and sealed with a silicone sealer (or equivalent) around all fixed, vertical objects (e.g. doorways, posts, etc.).
- 14.3. To maximize the aesthetic appearance and serviceability of the newly installed flooring, provide your customer with a copy of the **Gerflor USA Maintenance Instructions**:
<https://www.gerflorusa.com/media/17-usa-website/7-technical-doc/gerflor-usa-maintenance-instructions-sport-products-2017.pdf>

15. GAME LINE PAINTING

- 15.1. For areas to receive Gerflor Game Line Paint, please refer to the **Gerflor Game Line Painting Instructions**: <http://www.gerflorusa.com/professionals-products/floor/game-line-paint.html>

For further information, please contact Gerflor USA - Technical Services:



Technical Services



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