

RECREATION 60 INSTALLATION INSTRUCTIONS FOR 6MM BLEACHERBLOK SYSTEM.

**IMPORTANT NOTICE: IF YOU ARE NOT FAMILIAR WITH THIS TYPE OF INSTALLATION OR THE USE OF A 2-PART ADHESIVE, CONTACT GERFLOR TECHNICAL SERVICES:
1-877-GERFLOR 1-877-437-3567**

This document refers to the following products:

Product	Size	Thickness	Installation direction	Seam treatment
Recreation 60 Surface	Approximately. 4' 11"	2mm	Same	Heat Welded
BleacherBlok 4mm	48" x 60"	5mm	Stippled side down	None

USAGE: For areas where bleachers will be installed, we suggest the use of BleacherBlok System 6mm. BleacherBlok System 6mm will resist the point load of bleachers that will often dent any sport surfaces.

-] 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 F1482-15 Standard Practice for Installation and Preparation of Panel Type Underlayments 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. STORAGE AND HANDLING

-] Store BleacherBlok 4mm on clean, flat, and solid surfaces in a controlled environment. Do not store outside. Stack not more than 3 ft. high.

-] Store rolls of Recreation 60 Surface on clean, flat, and solid surfaces in a controlled environment. Do not store outside. Place rolls in an upright position. Do not stack rolls on top of each other.
-] Displaced material on a skid or a broken skid will damage the BleacherBlok 4mm and could leave marks and dents in the material that won't be repairable.
-] Handle all materials carefully and safely.

1.1. ACCLIMATION

-] Under normal condition, the BleacherBlok 4mm and rolls of Recreation 60 Surface must acclimate for 24 hours prior to the installation. In some cases, where the flooring may have a long period 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 302.1-R 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 1/8" 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, should be tested for moisture rates 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>**
-] 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 8-lbs./1000 sq. ft./24 hrs. per ASTM F1869-16 and not to exceed 85% RH per ASTM F2170-16.**
-] 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.
-] Prohibit circulation of other trades in the installation area.
-] 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, curing agents, 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.
-] **Do not install over Gypsum Concrete.**

-)] **Do not install over existing resilient flooring.**
-)] **Do not use any chemical abatement products (liquid solvents or adhesive removers) for the removal of old adhesive.**
-)] **Do not install over expansion joints, control joints, cold joints or any other joints that may be subject to movement.**

2.1. Wood subfloors

-)] **Do not install over OSB, particle board, chipboard, lauan or composite type underlayments.**
-)] Wood subfloors must have a minimum of 18" of cross-ventilation space between the bottom of the joist and the ground.
-)] Any exposed earth crawl space must be sealed with a polyethylene moisture barrier.
-)] 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.
-)] Always refer to ASTM F1482-15 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring.
-)] Any subfloor that has a single layer must be covered with a ¼" or more of APA approved underlayment plywood.
-)] When plywood is installed in large areas, telegraphing of plywood through the flooring is most likely to happen.

3. DRY LAY OF BLEACHERBLOK 4MM

-)] Installation temperature shall be at least 65°F maintained for 48 hours prior to during and 72 hours after installation.
-)] BleacherBlok 4mm must be dry laid to allow for proper acclimation.
-)] Mark the center starting line and a 90° line.
-)] Trace a second line at 2'6" from the other one so the pieces can be staggered.
-)] Start installing at the intersection of those 2 lines.
-)] Make sure that the seams of the BleacherBlok 4mm and the seams of Surface are not on top of each other.

3.1. INSPECTION OF BLEACHERBLOK 4MM

-)] Inspect BleacherBlok 5mm carefully to verify the thickness, quality and quantities have been shipped as ordered.
-)] 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.

IMPORTANT: INSTALL THE BLEACHERBLOK 4MM STIPPLED FACE DOWN SO IT WILL BE IN CONTACT WITH THE CONCRETE SLAB.

-)] Since the BleacherBlok System requires the use of a 2-part polyurethane adhesive, we recommend installing the BleacherBlok 4mm first, then the Recreation 60 in the playing area and finally the Surface on the BleacherBlok 4mm to match the planks alignment as much as possible.
-)] Treat the seams between the BleacherBlok System and the Recreation 60 the same as regular seams to be heat welded

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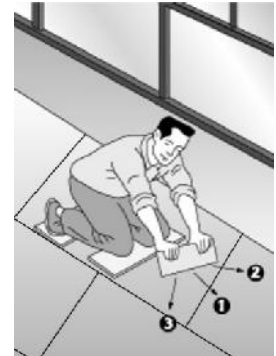
3.2. GERFLOR T-111 POLYURETHANE ADHESIVE METHOD FOR BLEACHERBLOK 4MM

-) Use only a Gerflor T-111 polyurethane adhesive.
-) Respect the guidelines indicated on the pail of adhesive.
-) The recommended trowel size to install BleacherBlok 4mm is 1/32" x 1/16" x 1/32" 'U' notch, covering up to 245 sq. ft. per US gallon.
-) Mix polyurethane adhesive part A and part B as recommended by the adhesive manufacturer.
-) Installers must be familiar with the use of polyurethane adhesives.
-) Starting from the center line and working outward and apply the adhesive to the subfloor.
-) To ensure uniform adhesion of the entire surface, only spread a workable amount of adhesive at one time.
-) Maintain a uniform spread rate. Replace trowel (or trowel blade) with every pail used.
-) The adhesive must flash-off 15 to 20 minutes prior to installing the tiles into the adhesive.
-) Once BleacherBlok 4mm is placed into the adhesive, immediately roll thoroughly with a 3 section 100-lbs roller in both directions.



Note: Use a 14" to 16" cork board or a piece of 2" x 4" wrapped with a piece of carpet to remove air bubbles.

-) During the installation, always double check the flooring for bubbles with portable or fixed lighting.
-) Fill any gapped seams with the T-111 adhesive.
-) Wait that the adhesive has set overnight before installing the Surface over the BleacherBlok 4mm.
-) Next morning, verify for any smudges of adhesive or lippage at the seams and using a hand belt sander, sand down where needed to obtain a smooth surface for the next step



REMINDER: INSTALL BLEACHERBLOK 4MM STIPPLED FACE DOWN.

WARNING: VERIFY THAT THE SEAMS OF THE BLEACHERBLOK 4MM ARE PROPERLY ADJUSTED AND LEVELED. ANY DIFFERENCE IN HEIGHT AND SMOOTHNESS OF THE INSTALLED BLEACHERBLOK 4MM WILL VISIBLY TELEGRAPH THROUGH THE SURFACE.

4. RECREATION 60 SURFACE INSPECTION

-) Inspect Recreation 60 Surface Sheets to verify that correct colors, patterns, and quality have been shipped. Do not cut, install, or fit any material that has visible defects. Minor edge damage or distortion should be trimmed prior to installation of the sheets.
-) **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.**

4.1. DRY LAY OF SURFACE SHEETGOODS

Note: When installing BleacherBlok System side by side to Recreation 60, adjust the seams as the other seams in the Recreation 60.

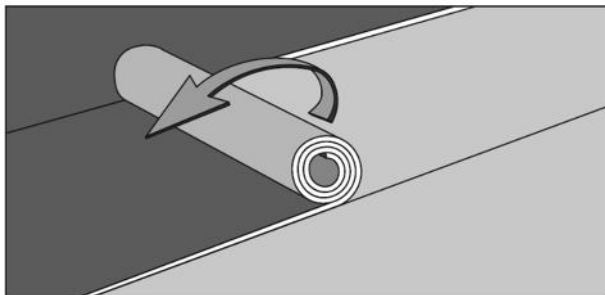
-) Installation temperature shall be at least 65°F maintained for 48 hours prior to during and 48 hours after installation.
-) Mark the center starting line.
-) Unroll the first length of material along this chalk line and then work progressively outward, leaving a 1/4" gap between the sheets to allow the material to relax for at least 16-24 hours.
-) Seaming should be kept to a minimum and avoid cross seams as much as possible. Place seams in areas exposed to the least amount of traffic.
-) The seams of the Surface sheet good **cannot** sit on top of the seams of the BleacherBlok 4mm. they have to be staggered by at least 6".
-) Before applying the adhesive, bring the loose sheets close together leaving a gap of 1/32".
-) The 1/32" gap is the space needed to groove the flooring for heat welding. This gap must be constant in width.

4.2. GERFLOR T-111 POLYURETHANE ADHESIVE METHOD TO INSTALL SURFACE TO BLEACHERBLOK 4MM

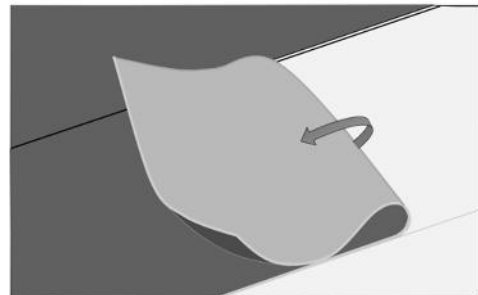
-) Use only a Gerflor T-111 polyurethane adhesive.
-) Respect the guidelines indicated on the pail of adhesive.
-) The recommended trowel size to install Surface over BleacherBlok 4mm is 1/32" x 1/16" x 1/32" 'U' notch, covering up to 245 sq. ft. per US gallon.
-) Mix polyurethane adhesive part A and part B as recommended by the adhesive manufacturer.
-) Installers must be familiar with the use of polyurethane adhesives.
-) Starting from the center line and working outward, fold the sheets back halfway and apply the adhesive to the subfloor.
-) Installer may also use the "roll back" method. With the roll back method, do not pre-cut material as if to be the final trim. Leave material 2"-3" longer for trimming after placement.

Note: Fold back and roll back methods are preferred to the fold lengthwise method. Some areas will dictate the fold lengthwise method.

Rollback method

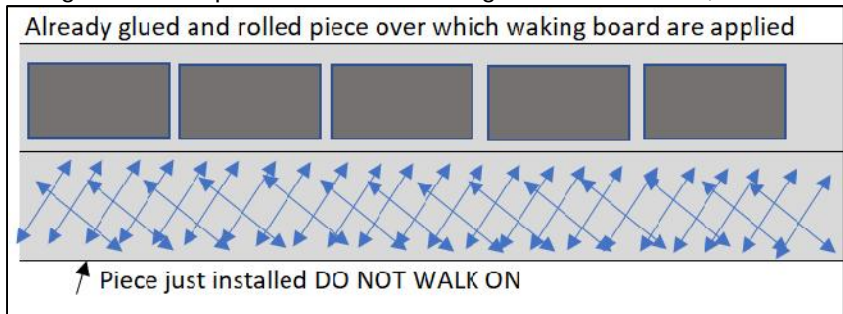


Fold back method



-) To ensure uniform adhesion of the entire surface, only spread a workable amount of adhesive at one time.

-] Maintain a uniform spread rate. Replace trowel (or trowel blade) with every pail used.
-] Although there is no 'open time' with this type of adhesive, the flooring should be applied into the adhesive within 20 minutes.
-] While installing, always work to have complete sheets glued at the end of the day.
-] To reduce the risk of bubbles, the roll back method is the most recommended.
-] By keeping the roll tight and maintaining a constant pressure while unrolling into the adhesive, the risk for bubbles will be minimal.
-] The fold back method is acceptable, but care must be taken to not flap it back too quickly.
-] Once flooring is placed into the adhesive, immediately roll thoroughly with a 3 section 100-lbs roller in both directions.



Note: Use a 14" to 16" cork board or a piece of 2" x 4" wrapped with a piece of carpet to remove air bubbles.

-] Continue laying sheets by keeping the edges spaced 1/32", trimming each side with a straight edge or scribing. The goal is to produce a uniformly 1/32" spaced seam for welding.
-] During the installation, always double check the flooring for bubbles with portable or fixed lighting.
-] Avoid adhesive displacement by prohibiting traffic for a period of 48 hours and 72 hours for rolling loads.
-] **The use of walking 4' x 8' 1/4" Masonite boards and kneeling boards are mandatory to protect from adhesive displacement during installation.**



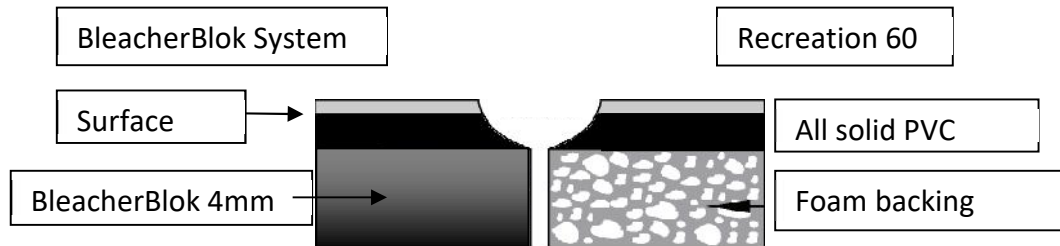
5. HEAT WELDING RECREATION 60 SURFACE (Refer to our document: Verification of Heat Welded Seams)

5.1. ROUTING:

-] Use an electric routing machine for major installation such as Leister or equal, approved by manufacturer.
-] The Master Turbo Sport 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 2/3 of the Surface.**



-)] To weld the seams between Surface and Recreation 60, rout as the products as described below.



-)] For any weld in the Recreation 60 that is NOT welded with Surface, follow the welding instructions as describe in the installation instructions of the Recreation 60.

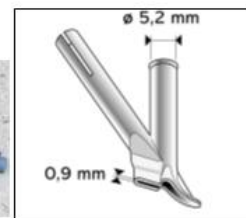
5.2. MANUAL WELD:

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.

<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.



Turbo Precision Nozzle # 22-3

Romus Rapid Nozzle 95027

5.3. 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:

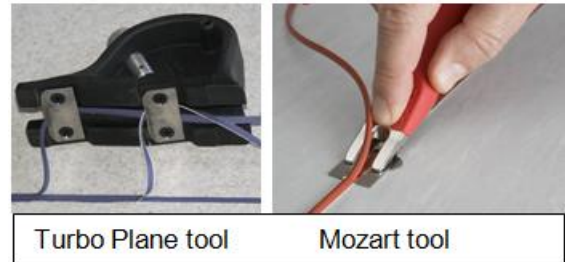
-) **For any type of installation, do not heat weld resilient flooring for a minimum of 16 to 24 hours after the material has been placed into the adhesive.**
-) **Refer to ASTM F1516-13 "Standard Practice for Sealing Seams of Resilient Flooring by the Heat Weld Method".**



5.4. 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.



6. 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 door frames is well trimmed and sealed with a silicone sealer or an equivalent product.

For any information, please refer to Gerflor Technical Services.



Gerflor USA, Inc.
595 Supreme Drive
Bensenville, IL 60106
Tel.: 1-877-Gerflor
Tel.: 1-877-437-3567
Gerflorusa.com