



TECH-FLOOR

Specialty Flooring

INSTALLATION & MAINTENANCE
TECHNICAL GUIDE

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TECH-FLOOR INSTALLATION GUIDELINES

I. BEFORE YOU BEGIN A TECH-FLOOR AND TECH-FLOOR GLOSS INSTALLATION:

Good work habits require on-site installers to review all safety and health information available. **This includes the review of:**

- A. Material Safety Data Sheets (MSDS)
- B. Labels
- C. Specifications
- D. Instructions
- E. Other pertinent publications

II. DEFINITIONS

A. *Grade Levels*

1. **Suspended** – A suspended floor is one with a minimum of 18” of well ventilated air space below.
2. **On-Grade**-An on-grade floor is one in direct contact with the ground or over a fill which is in direct contact with the ground. A slab on ground level is an example of this type of floor.
3. **Below-Grade** – A below-grade floor is partially or completely below the surrounding grade level in direct contact with the ground, or over a fill, which is in direct contact with the ground.

B. *Sub-Floors and Underlayments*

1. **Sub-Floor** – A sub-floor is selected for structural purposes and is the substrate for the underlayment.
2. **Underlayment** – *The smooth surface used as the substrate for the floor covering.*
3. **Sub-Floor/Underlayment Combination** – *A surface, which must meet structural requirements as well as have a smooth surface for the floor covering.*

III. INTERIOR AND EXTERIOR PREPARATIONS

A. *Wood Floor/Sub-Floor Preparation*

1. TECH-FLOOR and TECH-FLOOR GLOSS installation on wood sub-floors is recommended for suspended sub-floors only. On-grade or below-grade installations will be at the discretion of the installer or end user.
2. Sub-floor panels, strip wood and board or plank-type sub-flooring, may require covering with underlayment panels. (See **Section III.A.3.**)
3. Wood underlayments should be structurally sound, designed for resilient flooring underlayment purposes, with a minimum thickness of ¼”. Panels should be clean, free of any dirt, wax oil or residue of adhesive.
4. All wood underlayments/sub-floors should be solid, well nailed at the joints, and free from movement.

5. Old wood floors to be covered should be stripped of paint or varnish, and old adhesive, wax, paints or oils must be removed, encapsulated or it can be covered with an appropriate underlayment.
(See **Caution, Attachment D**)

B. Concrete Floor Preparation

1. The surface of a concrete sub-floor should be dry, smooth, and structurally sound. It should also be free of depression, scale, or foreign deposits of any kind.
2. All concrete sub-floors on or below-grade level should be tested for moisture (See **Section III.B.7.d.**)
3. Paint, varnish, oil and wax, should be entirely removed from all sub-floors. (See **Caution, Attachment D**)
4. Rough, uneven cracked, score marked concrete floors should be cleaned and filled with an appropriate mastic or underlayment on any grade level. It is not recommended that expansion joints with elastomeric fillers be covered either with underlayment or by flooring. Flooring installed across expansion joints often crack or buckle when the slabs move.
5. Dusty or chalky surfaces on a suspended concrete sub-floor should be swept clean and sized with one coat of primer. A dusty concrete floor on or below-grade can be a sign of alkali salts and/or moisture. An alkalinity and moisture test should be conducted. (See **Section III.B.7.**)
6. Scaly and cracked concrete may not be a good foundation for TECH-FLOOR and TECH-FLOOR GLOSS installations. The installer may consider applying a topcoat of concrete.
7. **Concrete Drying/Curing**
 - a. Most curing compounds also reduce the adhesion properties of some adhesives that may be used with TECH-FLOOR and TECH-FLOOR GLOSS flooring. They should not be used on floors to be covered, unless they are of a kind, which is known to not interfere with adhesion. It is recommended that a bond test be conducted prior to complete installation. (See **Section III.B.7.d.**)
 - b. Suspended concrete should be permitted to dry thoroughly with good ventilation, and if possible, with heat. TECH-FLOOR and TECH-FLOOR GLOSS may be installed only after moisture tests and alkalinity tests prove the substrate meets the adhesive requirements. (See **Attachment A**)
 - c. On-grade or below-grade concrete floors should have a moisture barrier installed to protect from ground moisture.
 - d. Bond, moisture test and alkalinity test are used to determine if the concrete is sufficiently dry as well as to determine the compatibility of the flooring adhesive to the concrete sub-floor. Test areas should be selected adjacent to walls, columns, etc...and other light traffic areas. Using the flooring material specified, install at least one panel using the adhesive recommended. If after 72-hours, the bonded material is secure, it

may be concluded that the sub-floor surface is dry and sufficiently clean of foreign materials for the satisfactory installation of TECH-FLOOR and TECH-FLOOR GLOSS flooring.

Although the dryness of a below-grade concrete slab can be determined at the time of installation, it is not a guarantee that the slab will be free of excess moisture forever.

- e. Several test for moisture are available and may be used by the contractor and /or installer.

These include, but are not limited to:

1. Delmhorst Moisture Test
2. Protimeter Concretemaster
3. Anhydrous Calcium Chloride Test

- f. Where moisture is present, several methods for correcting this deficiency have been developed.

These include, but are not limited to:

1. Sodium Silicates
2. Potassium Silicates
3. Surfaces Coatings
4. Vapor Membranes

- 8. There are many available products that have been developed for use as floor fills that include cellular concretes, resin-reinforced self-leveling cement underlayments, and gypsum-based products. These are commonly recommended by the manufactures or installers for leveling rough or uneven sub-floors, or as toppings for otherwise unsuitable sub-floor conditions. All recommendations and guarantees regarding their suitability and performance as underlayments for both Tech-Floor and Tech-Floor Gloss flooring must be the responsibility of the manufacturer and installer of the underlayment system used. It is recommended that neither Tech-Floor nor Tech-Floor Gloss flooring be installed over gypsum based patches or underlayments that have been applied to on or below-grade concrete or damp suspended concrete.

- 9. Because of joints between sections or concrete planks, this type of sub-floor requires finishing with a concrete topping before either Tech-Floor or Tech-Floor Gloss flooring is installed. Trowelable underlayment is not recommended for smoothing performed concrete sub-floors.

C. *Radiant Heated Concrete Floors*

Tech-Floor and Tech-Floor Gloss may be fully adhered over radiant heated concrete floors provided the maximum temperature of the floor does not exceed 85°F under any conditions of use.

D. *Existing Resilient Floors*

1. Tech-Floor and Tech-Floor Gloss may be installed over most existing resilient flooring products providing the proper installation system is used for both products and old resilient flooring meets the following.

- a. It must not be textured or embossed enough to show the new installation. Tech-Floor and Tech-Floor Gloss can help to prohibit the mirroring effect of the pattern being covered.
 - b. It is completely and firmly bonded.
 - c. It is properly installed over recommended underlayments and substrates also recommended as being suitable for Tech-Floor and Tech-Floor Gloss flooring.
 - d. It must show no evidence of moisture, alkaline salts or hydrostatic pressure.
 - e. Waxes and other finishes should be removed if either product is to be fully adhered.
 - f. Indentations or other damaged areas should be replaced or repaired.
 - g. The PA 127 or PA 139 2-Part epoxy adhesives are the only adhesives for fully adhering Tech-Floor or Tech-Floor Gloss over existing resilient flooring.
2. If there is any doubt about the existing resilient flooring being acceptable as an underlayment, it should be covered with an appropriate wood underlayment or removed (**See Warning Attachment D**)

E. *Polymeric Poured (seamless) Floors*

1. All seamless floors being used as a sub-floor for TECH-FLOOR or TECH-FLOOR GLOSS Flooring must be well cured and free of any residual solvent, structurally sound, and well bonded to a concrete sub-floor. Any loose or damaged areas must be completely removed and patched with an appropriate underlayment of patching compound. There must be no history of moisture related problems.
2. Any nubby texture should be removed by machine sanding. (**See Section III.C.1.a**) Do not use a skim coat of latex underlayment to smooth the surface, as it will not adhere reliably to the pour-on floor.
3. Old floor finishes must be completely removed if Tech-Floor or Tech-Floor Gloss Flooring is to be fully adhered. Ensure substrate is completely dry if old finish is wet stripped.

F. *Metal* Tech-Floor Gloss flooring is to be installed on or over metal, a bond test should be conducted prior to complete installation or contact Amarco Products for additional information and recommendations.

G. *Ceramic Tile, Terrazzo, Quarry Tile, and Marble*

1. Only Tech-Floor flooring is recommended for installation over ceramic tile, terrazzo, quarry tile, or marble sub-floors above, on and below grade. They should be firmly bonded to a structurally sound substrate.
2. The floor must be cleaned of all paint, varnish, oil wax, and finishes if Tech-Floor is to be fully adhered. (**See Caution, Attachment D**) Glazed or very smooth surfaces should be abraded, and badly fitted joints or cracks should be repaired, and/or leveled with an appropriate underlayment prior to installation.
3. The PA 127 or PA 139 2-Part Epoxy Adhesive may be used in some cases, as the filler or underlayment over ceramic Tile, Terrazzo, Quarry Tile and Marble Floors.

IV LAYOUT, DESIGN, AND INSTALLATION

Note:

For all Tech-Floor and Tech-Floor Gloss sheet flooring and tiles, normal flooring installation practices should be followed. For sheet flooring, a staggered joint method is recommended and should be employed whenever possible. A dry layout prior to adhering and/or seam sealing is highly recommended for all installations. Both products will follow the contour of the sub-floor to be covered. The smoother the substrate, the better the finished floor appearance.

A. General Specifications - Installation

1. Installation should not begin until the work of all other trades has been completed and the area cleared of extraneous materials. If the job requirements are such that the floor must be installed before other trades have completed their work, the installed flooring should be covered with a suitable protective covering.
2. For interior installations; all rooms, Tech-Floor flooring and/or Tech-Floor Gloss and all adhesives should be maintained at a minimum temperature of 70°F (21.11 °C) for at least 24-hours before, during and after installation.
3. For fully adhered installations; spread adhesive evenly and at the rate of coverage recommended for application (**See Attachment A**) Weights, such as sand bags, may have to be used on the edges, corners, drain slopes, or seams of fully adhered installations while the adhesive cures.
4. For weight room applications, it is recommended that a small to medium size sheet or mat of ¼" Tech-Floor flooring be loose laid on top of the initial floor at locations where weights are consistently dropped. This will help to prevent damage to the floor, sub-floor, and weights. This will also help to prolong the life of the initial layer of flooring. The loose laid sheets or mats may be of a contrasting color to highlight the overall floor appearance and increase their visibility.

NOTE:

Both Tech-Floor and Tech-Floor Gloss flooring products are directional. The sheet and square cut tiles are marked appropriately to indicate machine direction. Tech-Floor and Tech-Floor Gloss sheets have a white arrow on the top surface of each sheet, which indicates both the direction and the topside of the sheet. The sheets should be installed with all of the arrows pointing in the same direction. Remove and discard the arrows after final installation. Remove adhesive residue left from arrows with a safety solvent, and then clean those areas thoroughly to remove solvent residue. In some cases, Tech-Floor (non-Gloss) can be installed with either the smooth (matte) or ripple pattern facing down. Although not considered a reversible product, this type of installation is at the discretion of the installer and the end user. In this case, the white arrows should be removed before the sheet is placed into the adhesive. The square 24" x 24" tiles will have a mark on the side edge of each tile to indicate

machine direction. Square cut tiles should be installed with all of the marks facing the same direction. The mark is not visible after the tiles are installed.

B. *Tech-Floor* and *Tech-Floor* Gloss Sheet Flooring and Tile Systems

1. Both Tech-Floor and Tech-Floor Gloss sheet flooring may be installed in loose lay format for some interior applications only. Loose lay applications are based on installer's recommendations and the end user's requirements. Limitations exist when installing either Tech-Floor or Tech-Floor Gloss flooring without adhesives, consult with Amarco Products before planning the installation. Only Tech-Floor sheets can be rolled for shipment. If rolled, the sheets and/or rolls should be reverse rolled and allowed to completely relax in a warm environment prior to installing.
2. Fully adhered indoor installations require the use of Tech-Floor #127 Two-Part epoxy adhesive, or the Tech-Floor #139 Fast Setting Two Part Epoxy Adhesive (**See Attachment A**) based on installation requirements. The installer should perform, at minimum, a bond test in the area of the flooring installation to ensure the adhesive selected will perform adequately for the installation requirements. Consult Amarco Products for more detailed information and adhesive Tech-Floor Gloss interior installations involving the following should be fully adhered: All areas involving heavy foot traffic, rolling loads, conditions of high humidity or where any moisture may be present, and installations that may have drastic changes in ambient temperature, for example: Ice rinks, locker rooms and shower room locations. Also for all installations involving heavy traffic conditions, such as; installations with fork truck or heavy cart traffic, warehouse or factory installations, and any installations where wheeled traffic may be present.
3. All exterior installations must be fully adhered only. Tech-Floor Gloss is not recommended for outside applications. The following guidelines are recommended for fully adhered exterior installations.
 - a. Ensure that Tech-Floor has been acclimated to the installation temperature prior to installation.
 - b. Curing times for adhesive are generally affected by both humidity and temperature. The installer should consult the adhesive instruction. (**Attachment A**)
 - c. The Tech-Floor flooring installation may require adjustment during the adhesive curing process. To reduce gapping/buckling associated with temperature changes and changes in directional sunlight, Tech-Floor should be monitored and if necessary shifted into proper position until initial hard set of adhesive takes place. Use duct/masking tape and/or other means to hold seams together until adhesive has hard set. If possible, the installation area should be enclosed or covered from direct sunlight during installation and for 24 hours after installation to help reduce material expansion and contraction.

4. Both Tech-Floor and Tech-Floor Gloss 24" x 24" square cut tiles should be fully adhered with the applicable epoxy adhesive required for the installation. 24" x 24" square cut tiles can be installation in typical tile patterns, I.E.; diamond pattern, staggered joint pattern, brick pattern or four-corner pattern. Normal tile installation procedures should be followed for installing either Tech-Floor or Tech-Floor Gloss.
5. Tech-Floor and Tech-Floor Gloss flooring can be field cut utilizing a razor knife and a straight edge. Use caution whenever using razor knives or similar cutting devices, to prevent accidental bodily harm. Table saws, circular saws, and routers may also be used.
6. Seam sealing of Tech-Floor and Tech-Floor Gloss flooring may be accomplished by several methods. The seams may be chemically welded using the Amarco Products Chemical Seam Sealer or the seams may be heat welded using the Tech-Floor Welding Rod or Tech-Floor Gloss Welding Rod based on installation requirements. In some instances, both chemical and heat welding is advisable such as when installing for commercial kitchens or walk-in coolers.
7. Reducing strips, edge guards, cove cap, and corner strips, manufactured from metal, vinyl, or rubber are may be used at the discretion of the installer.
8. Game lines may be painted directly onto Tech-Floor or Tech-Floor Gloss flooring using an appropriate game line paint or recommended paint for those purposes (**See Attachment C**). It may be necessary to apply a minimum of two to three coats of the paint to achieve the appearance required. All interior Tech-Floor (Non-Gloss) installations should have an approved sealer/floor finish applied over the entire floor surface after the game line paints and adhesives have cured and/or dried (**See Attachment B**). Game line tapes in lieu of game line paints, can be used on Amarco Gloss. (**See Attachment C**)
9. It may be necessary to trim or cut the sides and/or ends of both Tech-Floor and Tech-Floor Gloss to achieve tight seams. This should be accomplished only after proper acclimation and after a dry lay out has been completed.
10. After flooring is placed in the adhesive, it is recommended that the entire installation be rolled using a minimum 100-pound flooring roller, or a suitable substitute, to embed the flooring in the adhesive and eliminate trapped air. Weights, such as sand bags, may have to be used on the edges, corners, drain slopes or seams of fully adhered installations while the adhesive cures. To ensure flooring makes contact with the adhesive along walls, door casting, etc., press firmly in place with a hand roller or with hand pressure and cloth. The entire installation should be rolled a second time following adhesive requirements in Attachment A for appropriate adhesive. This will help to ensure an even, consistent spread of adhesive and provide maximum bond.
11. Care should be taken when laying sheets onto adhesive. Place edge next to the adjacent sheet first, taking care not to drag the sheet across the adhesive. Most adhesives (when curing) have a memory, which may cause the seam to open up during the adhesive curing process.
12. Border pieces for interlocking tiles may be field cut from full size interlocking tiles utilizing a razor knife, or similar device, and a straight

edge. Use caution whenever using razor knives to prevent accidental bodily harm. A full size-interlocking tile may be cut into fourths to use as corners pieces. Full size interlocking tiles may be cut into halves for use as border pieces.

C. Chemical Seam Sealing

Note:

Seam sealing of Tech-Floor and Tech-Floor Gloss is at the discretion of the installer and/or the end user. Amarco Products recommends that all installations have seams either chemically or heat welded. Any seam that is subject to water and/ or dirt becoming embedded in the seam area should be welded. Regardless of the method used the installer should practice seam sealing on scrap pieces of flooring to gain experience and become familiar with the product application. Seams that have already been chemically welded generally cannot be re-chemically seam sealed.

1. When using Amarco Products chemical seam sealer, seams must be cut so there are no overlaps or gaps in flooring.
2. Application of chemical seam sealers in moist, wet, or conditions of high humidity may cause lacquer blushing (fogging).
3. In making the seam, care must be taken on fully adhered installations, to prevent any floor-covering adhesive from getting between the cut edges of Tech-Floor and/or Tech-Floor Gloss flooring. The adhesive may prevent the seam sealer from bonding properly in the seam.
4. Only Amarco Products seam sealer and applicator are recommended for use with Tech-Floor and Tech-Floor Gloss flooring.
5. Observe all cautions and warnings on the seam sealer label and follow installation guidelines for seam sealer application.
6. Protect sealed seams from dirt and traffic until seam sealer has properly set.
7. Some installations may require the seam sealer to be applied inside the seam prior to complete installation. Allow a gap sufficient enough to allow the seam sealer to be applied to one side of the seam. Both seams should then be butted together to form a tight joint. Use care so as not to apply the seam sealer in too much quantity (excessive amount).
8. The Amarco Products Seam Sealer may also be applied using the Professional Applicator Kit. Instructions for typical seaming methods are included with each kit. An alternate method is to apply clear sealing tape or masking tape over the seam prior to applying seam sealer. The tape should be centered on top of the seam along the full length of the seam. Using a razor type knife or similar cutting tool, gently cut the tape down the length of the seam. Follow normal seam sealing applicator instructions for applying seam sealer. After the seam sealer has cured, remove and discard the tape. The seam should not have any visible signs of seam sealer on the top of the Tech-Floor or Tech-Floor Gloss seam.
9. On loose laid installations, double stick tape may be used on the underside of Tech-Floor seam prior to applying seam sealer. The tape will help prevent seam sealer from flowing under flooring and aid in keeping seam together while sealer cures.

Note

Care should be taken when using Amarco Products Seam Sealer, so as to prevent spills on either the Tech-Floor or Tech-Floor Gloss flooring. The seam sealer will bond with both products immediately upon contact. Before seam sealer sets-up, overflow should be removed immediately by wiping off excess from Tech-Floor and Tech-Floor Gloss with a clean dry cloth.

D. *Tech-Floor Heat Welding*

1. Heat welding of Tech-Floor flooring is suggested for installations involving kitchens, high traffic use, wet areas, outside installation, or any installation requiring a monolithic type floor.
2. Only the Tech-Floor Welding Rod is recommended for heat welding Tech-Floor sheet flooring.
3. Special welding tips and router blades will be required with the Tech-Floor Welding Rod because of the diameter of the rod, which is 5.25mm. Consult Amarco Products for more detailed information on welding tip and router blade requirements.
4. It is recommended that seams be seared or striked after trimming the welding rod. This will help to ensure a smooth seam transition and help strengthen the overall weld. Consult Amarco Products for more information on searing tools and techniques.
5. Some installations may require the seams to be both chemically welded and heat welded. Consult Amarco Products for particular details or instructions.
6. It is highly recommended that the installer practice heat welding on scrap pieces of Tech-Floor to ensure the proper temperature has been selected and also to gain experience with product application.

E. *Tech-Floor Gloss Heat Welding*

1. Heat welding of the Tech-Floor Gloss sheets may be necessary based on installation requirements such as; health codes, aesthetic reasons, or for end user requirements.
2. Only the Tech-Floor Gloss rod is recommended for heat welding of Gloss sheet flooring.
3. A special welding tip is required to prevent heat damage to the wear surface around the heat welded seam. Consult Amarco Products for more detailed information on welding tip requirements.
4. Care must be taken when trimming the finished welded seam so as not to damage or score the wear layer around the seam area. Special trimming tools are available that help eliminate the risk of damage to the seam area.
5. It is highly recommended that the installer practice heat welding on scrap pieces of Tech-Floor Gloss to ensure the proper temperature has been selected and also to gain experience with product application.

V. TECH-FLOOR AND TECH-FLOOR GLOSS CARE AND MAINTENANCE

Note:

Tech-Floor flooring installations should be cleaned prior to any floor finish/coating being applied. Ensure that adhesive on adhered installations has cured completely prior to floor cleaning. A finish/coating will reduce the overall coefficient of friction of Tech-Floor when applied.

A. *Sealer/Floor Finish Guidelines for Tech-Floor Flooring*

1. Indoor Matte Tech-Floor installations should have a sealer/floor finish applied except for those installations involving spike/cleat traffic, heavy wheeled traffic, or around wet areas such as commercial kitchens, swimming pools, spas and ice rinks. **(See Attachment B)**
2. If a finish is required, it should be applied as soon as possible after installation for loose lay applications. Apply finish to fully adhered installations only after allowing adhesive to set properly according to adhesive instructions and recommendations. Apply sufficient time for thorough drying of each coat of finish before applying additional coats. **(See Attachment B)**
3. An indoor finish/coating is not recommended for outdoor Tech-Floor flooring installations.
4. All finish/coating should be applied according to the manufacturer's recommendations and instructions. Special applicators may be required. Consult the manufacturer for more information.
5. A finish may be applied to textured and/or rippled Tech-Floor flooring if desired. To apply, an airless sprayer, or fine nap roller or a combination of both methods may have to be used based on finish manufacturers instructions.
6. A power buffer or floor scrubber may be used for cleaning and/or buffing of Tech-Floor. If installation is fully adhered, ensure adhesive has cured properly prior to using buffer or floor scrubber.

B. *Cleaning*

1. Tech-Floor flooring with a non-factory applied finish should be cleaned and maintained in accordance with the finish should be cleaned and maintained in accordance with the finish manufacturer's recommendations and instructions (See Attachment B.). A power buffer or floor scrubber may be used on fully adhered installations. When using power equipment to clean loose laid Tech-Floor or Tech-Floor Gloss installations, care must be taken so as to not damage or break apart welded seams since the floor is not fully adhered.
2. Tech-Floor Gloss flooring may be cleaned using a neutral floor cleaner and a mop. Light scrubbing may be required to remove heavily soiled or deep black marks from the surface. Rinse floor and remove excess water and allow to air dry.
3. Indoor Tech-Floor flooring installations that do not have a finish applied may be cleaned with low sudsing neutral floor cleaner. A nylon bristle brush or stripping pad may be used with floor scrubber or buffer. For greasy/oily conditions such as: commercial kitchens, the use of a good detergent and/or a degreaser solution is recommended along with a deck brush and/or scrubber. Squeegee to drain or remove excess degreaser solution with a wet vacuum.

4. Outdoor Tech-Floor flooring installations may be cleaned with a detergent and/or a degreaser strong enough to accomplish the task. Power scrubber, nylon bristle deck brush and/or low-pressure nozzles with a power sprayer may be used for cleaning purposes.

C. *General Precautions*

1. Care should be exercised when moving/relocation equipment over Tech-Floor and Tech-Floor Gloss flooring installations so as to prevent damage to the new floor.
2. Do not scrub or strip fully-adhered floors until at least four or five days after installation so that the flooring will be become well seated in the adhesive.
3. The use of pads, wide casters/rollers and furniture/equipment cups, may prevent excessive indentation.

Note:

The performance and guarantee of the products used in preparation, testing, installation and maintenance of Tech-Floor and Tech-Floor Gloss, during and after installation, remain with the manufacturer of the said product and not Amarco Products.

Attachment: A

RECOMMENDED TECH-FLOOR ADHESIVE AND TROWEL NOTCHING

ADHESIVE: TECH-FLOOR #127 TWO-PART EPOXY ADHESIVE

- **Description:** Tech-Floor #127 (PA #127) Epoxy Adhesive is a low VOC, solvent-free two-part epoxy adhesive system specifically formulated for use with the Tech-Floor Specialty Flooring System and Tech-Floor Gloss. Tech-Floor #127 consists of a PART A and PART B. It may be used above, on, below grade concrete in the absence of excessive moisture. It is ideal for both porous and non-porous substrates. The PA #127 has one hour open time with an approximate 6 – 12 hour set time. The PA #127 is available in a two-pack gallon unit, packaged in plastic pails.
- **Mixing:** Mix Part A and Part B
- **Shelf Life:** One year in unopened container.
- **Trowel Size and Coverage Rates:** 3/32" x 3/32" x 3/32" Square notched trowel for smooth substrates. Coverage average will be 80 – 90 square feet per gallon unit

1/8" x 1/8" x 1/8" Square notched trowel for rough substrates.
Coverage average will be 70 – 80 square feet per gallon unit.
- **Features:** Good moisture, humidity and chemical resistance. Non-flammable with excellent tensile and shear strength. Clean-up adhesive with warm water or mineral spirits while adhesive is still wet. Once epoxy has cured, adhesive cannot be easily removed.
- **General Instruction:** Area of installation, epoxy Tech-Floor and Tech-Floor Gloss flooring should be maintained at 70 degrees F for at least 24 hours before, during and after installation. Moisture emission, hydrostatic conditions must be less than three pounds per 1,000 square feet for 24 hour period. A pH range of above 5 and below 10 is acceptable. Approved moisture reducers and coatings may be utilized to reduce the moisture content of substrate. Consult Amarco Products for list of approved products. Mix PART A and PART B thoroughly together in a container. Do not pour contents onto the substrate prior to mixing. Use a power mixer with a drill motor. Or mix by hand with a mixing paddle until the color and consistency is uniform IE; no streaking. Immediately pour contents onto substrate and spread with appropriate trowel. The cooler substrate temperature will slow the adhesive's set time and allow more working time for the installation. Tech-Floor and Tech-Floor flooring should be installed within one hour after spreading the adhesive. Roll installation immediately after installing floor and again within one to two hours after initial rolling. Remove wet epoxy with cloth dampened with water or mineral spirits. Installation should be free of pedestrian traffic for at least 12 hours after installation. Wheeled conveyances should not be allowed for at least eight days. Use 1/2" or thicker sheets of plywood or similar material on top of floor surface to displace weight if area must be used prior to adhesive full cure.

Attachment: A (Continued)

RECOMMENDED TECH-FLOOR ADHESIVE AND TROWEL NOTCHING

ADHESIVE: TECH-FLOOR #139 TWO-PART FAST SETTING EPOXY ADHESIVE

- **Description:** Tech-Floor #139 (PA #139) Fast Setting Adhesive is a low VOC, solvent-free, two-part epoxy adhesive system specifically formulated for use with the Tech-Floor Specialty Flooring System and Tech-Floor Gloss. Tech-Floor #139 consists of a PART A and PART B. It may be used above, on or below grade concrete in the absence of excessive moisture. It is ideal for both porous and non-porous substrates. The PA #139 is a faster setting version of the PA #127 Epoxy Adhesive. The PA #139 has an approximate 15 – 30 minute open time with an approximate 3 – 6 hour set time. The faster setting time of the PA #139 makes it ideal for repairs, small installation, or where time constraints affect other installation practices or other requirements such as: heat or chemical welding of seams, working time, or facility downtime makes the use of PA #139 more practical. The PA #139 is available in a two-pack gallon unit, packaged in plastic pails.
- **Mixing:** Mix Part A with Part B
- **Shelf Life:** One year in unopened container.
- **Trowel Size and Coverage Rates:** 3/32" x 3/32" x 3/32" Square notched trowel for smooth substrates. Coverage average will be 80 - 90 square feet per gallon unit.

1/8" x 1/8" x 1/8" Square notched trowel for rough substrates.
Coverage average will be 70 – 80 square feet per gallon unit.
- **Features:** Good moisture, humidity and chemical resistance. Non-flammable with excellent tensile and shear strength. Clean-up adhesive with warm water or mineral spirits while adhesive is still wet. Once epoxy has cured, adhesive cannot be easily removed.
- **General Instructions:** Area of installation, epoxy, and Tech-Floor flooring should be maintained at 70 degrees F for at least 24 hours before, during and after installation. Moisture emission, hydrostatic conditions must be less than three pounds per 1,000 square feet for 24 hour period. A pH range of above 5 and below 10 is acceptable. Approved moisture reducers and coating may be utilized to reduce the moisture content of substrate. Consult Amarco Products for list of approved products. Mix PART A and PART B thoroughly together in a container. Do not pour contents onto the substrate prior to mixing. Use a power mixer with a drill motor, or mix by hand with a mixing paddle until the color and consistency is uniform IE; no streaking. Immediately pour contents onto substrate and spread with appropriate trowel. The cooler substrate temperature will slow the adhesive's set time and allow more working time for the installation. Tech-Floor flooring should be installed within 15 minutes after spreading the adhesive. Roll installation immediately after installing floor and again within one hour after initial rolling. Adhesive set could begin as soon as 30 minutes with hard set within two to three hours depending on temperature and humidity. Installer should be aware of installation conditions and that modifications of the set and cure time for the adhesive may have to be adjusted accordingly. Remove wet epoxy with cloth dampened with water or mineral spirits. Installation should be free of pedestrian traffic for at least 6 hours after installation. Wheeled conveyances should not be allowed for at least eight days. Use 1/2" or thicker sheets of plywood or similar material on top of floor surface to displace weight if area must be used prior to adhesive full cure.

TECH-FLOOR FLOOR CARE OPTIONS

Option I: For certain interior and all exterior installations (when a floor finish has not been applied or recommended).

NOTE: A floor finish is not recommended in most locations involving high moisture or extremely abusive traffic conditions. For example: ice rink perimeter flooring, shower room floors, swimming pool perimeter flooring, commercial kitchen floors and all exterior installations.

Cleaning Recommendations:

- Mild or low sudsy detergent, and/or a commercial degreaser
- Low-pressure power washing, deck brushing, or power scrubbing as necessary
- Water wash-down, rinsing and/or squeegee to drain
- Consult **TECH-FLOOR** Technical bulletins for special cleaning instructions for commercial kitchen.

Option II: Basic Coatings Hydroline Floor Finish (Interior Only)

NOTE: Use this permanent non-strippable floor finish for interior locations where minimal floor maintenance is required. For example: sports floors, aerobic floors, fitness/weight room floors, gymnasium flooring, all purpose rooms, office installations, and most residential installations. This finish is not recommended for installations involving heavy pinpoint loading, heavy wheeled traffic or other mechanized traffic.

Characteristics:

- Water-based, two-part urethane floor finish
- Extremely durable, resists scuffs, easily cleaned and maintained
- Provides smooth, high wearing, satin finish
- 700-square feet per gallon for TECH-FLOOR with a matte surface (300-400 square feet per gallon for ripple or matrix surfaces).

Cleaning Recommendations:

- Daily cleaning using Squeaky Cleaner from Basic Coatings. Follow instructions per cleaner.
- Re-coat as necessary or as needed. (Will depend on traffic conditions, usually 1-2 years)

Attachment: B (continued)

**APPLICATION PROCEDURES FOR COATING A (MATTE SURFACE PATTERN)
TECH-FLOOR FLOOR WITH
BASIC COATINGS HYDROLINE FLOOR FINISH**

NEW INSTALLATION:

1. Clean the TECH-FLOOR floor thoroughly prior to coating with hydroline floor finish.
2. After the surface is dry, apply one coat of hydroline floor finish, using the recommended T-bar applicator tool, at a rate of 7ll square feet per gallon. (300-400 square feet for ripple and matrix surface patterns.) Allow drying approximately 3-hours with good ventilation. Drying time will vary depending on temperature and humidity. Do not allow finish to dry more than 6 hours before applying second coat.
3. If a second coat is desired, apply an additional coat of hydroline floor finish using the same tool as above, at a rate of 800 square feet per gallon (300-400 square feet per gallon for ripple or matrix surface patterns).
4. Allow hydroline floor finish to cure for 240hours before using floor.
5. Follow maintenance procedures printed on the “Basic Coatings Commercial Maintenance Guide” or “Sports Floor Maintenance Guide”.

**EXISTING TECH-FLOOR FLOOR WITH A WATER-BASED
URETHANE COATING PREVIOUSLY APPLIED:**

SCREENING METHOD

1. Clean/track the TECH-FLOOR floor surface with Basic Coatings Squeaky Cleaner at a ratio of 4-parts water to 1-part cleaner.
2. Abrade the floor surface using a low speed buffer and a 120-grit screen, turning the screen over every 250-square feet and replacing the screen every 500-square feet with a new screen.
3. Clean/track the floor surface with clear water until no dust is apparent on the surface of the floor.
4. Follow procedure under “NEW INSTALLATION” above, Section 2-5.

NON-SCREENING TYKOTE METHOD (For re-coat applications only)

1. Clean floor with Basic Coatings Intensive Floor Treatment (ITF) according to cleaner instructions. Rinse floor by damp mopping with clean water until rinse water is clean. Clean floor again with Squeaky Cleaner according to cleaner instructions. Rinsing is not necessary after using Squeaky Cleaner.
2. Allow floor to dry completely before applying TyKote.
3. Follow instructions for applying TyKote per application procedures supplied with system.
4. Apply hydroline floor finish per instructions under ‘NEW INSTALLATION’ above, Section 2-5.

NOTE: Basic coatings floor finishes are not guaranteed by the manufacturer as they cannot control the floor condition or application of their products. Contact Basic Coatings for further details.

Attachment: C

PAINT RECOMMENDATIONS FOR GAME LINES ON TECH-FLOOR FLOORING

The Following list of paints have been tested and found acceptable for use with Tech-Floor flooring. It is recommended that the paint selected to be used be tested prior to complete application to ensure the paint is acceptable and will bond to Tech-Floor. If acceptable, game lines may require two to three coats of paint. The paint should be applied in light coats and allowed to dry thoroughly between coats. Temperature and humidity will affect the curing/drying times. A floor finish is recommended after game line painting. Contact these manufacturers or your local distributor for a location nearest you.

1. Benjamin Moore & Co. DMT Acrylic Semi-Gloss
Phone # 201-573-9600 M29-08
2. ACE Paints Royal Satin Latex
Phone # 800-311-8324 Floor & Porch Acrylic
3. Fuller O'Brien Ultra Colors-Ready Mixed Colors or
Phone # 800-368-2068 #615 Versaflex

PAINT RECOMMENDATIONS FOR GAME LINES ON TECH-FLOOR GLOSS FLOORING

The following list of paints have been tested and found acceptable for use with Tech-Floor Gloss flooring. It is recommended that the paint selected to be used be tested prior to complete application to ensure the paint is acceptable and will bond to Tech-Floor Gloss. If acceptable, game lines may require two to three coats of paint. Some paints may require tacky set before applying subsequent coats. Follow paint manufacturers recommendations for applying the paint. Surface may require separate cleaning or bonding agents or surface may require etching either by chemical or mechanical methods. Temperature and humidity will affect the curing/drying times.

Contact these manufacturers or your local distributor for a location nearest you.

1. Trade Winds KrystalKote Gloss/Satin
888-463-3003
2. Adamin Syntane 3000 or Syntane 2000 Series
800-472-0333
3. Futura Gymflex 8563 Series Line Paint w/Futura Bond
314-521-4100

The performance and guarantee of the products used in preparation, testing, installation and maintenance of Tech-Floor, Tech-Floor Gloss during and after installation, remain with the manufacturer of said product and not Amarco Products. Amarco Products does not warrant the above products or their bonding properties.

CAUTIONS AND WARNINGS

Warning:

A. Flooring that contains asbestos:

1. Do not sand, dry scrape, bead blast or mechanically pulverize existing flooring, backing or lining felt. These products may contain asbestos fibers that are not readily identifiable. Avoid creating dust. Inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Smoking greatly increases the risk of serious bodily harm.
2. Numerous products, devices, and techniques have been recently introduced and/or recommended for the removal of resilient floor coverings. Before utilizing any work practice for resilient floor covering removal, it should be determined if the work practice meets all applicable regulations or standards, including those of the Occupational Safety and Health Administration (OSHA) for Occupational Exposure to Asbestos.

B. Adhesives containing asbestos:

1. Some in-place asphaltic adhesives may contain asbestos fibers that are not readily identifiable. In the removal of asphaltic “cutback” adhesives, do not use power devices, which can create dust. The inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Smoking greatly increases the risk of serious bodily harm. Assume that all in-place asphaltic “cut back” adhesives contain asbestos.
2. Numerous products, devices, and techniques have been recently introduced and/or recommended for covering and/or removal of residual asphaltic “cutback” adhesives. Before utilizing any work practice for covering or the removal of residual asphaltic “cutback” adhesives, it should be determined if the work practice meets all applicable regulations or standards, including those of the Occupational Safety and Health Administration (OSHA) FOR occupational exposure to Asbestos.

Caution:

Certain paints may contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state, and local laws concerning lead paint abatement.

TECH-FLOOR LIMITED WARRANTY

Amarco Products warrants that TECH-FLOOR and TECH-FLOOR GLOSS be free of manufacturing Defects for a period of two (2) years. Should a defect occur in TECH-FLOOR and TECH-FLOOR GLOSS to substantially restrict its function as intended, then Oscoda Plastics, Inc. is responsible solely to provide replacement of TECH-FLOOR, TECH-FLOOR GLOSS or manufacturer's cost, at the sole option of Amarco Products. Amarco Products shall not be responsible for labor.

THE REMEDIES STATED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES FOR FAILURE OF TECH-FLOOR AND TECH-FLOOR GLOSS. THERE ARE NO OTHER WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE; EITHER EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE FACE HEREOF. AMARCO PRODUCTS ASSUMES NO LIABILITY FOR CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, DAMAGE TO THE BUILDING OR ITS CONTENTS.

ADHESIVE WARRANTY

Amarco Products adhesives are manufactured according to exacting quality standards and warranted to be free of manufacturing defects for periods of six (6) months from the date of installation completion. Should an adhesive defect occur, then Amarco Products is responsible solely to provide replacement of Amarco Products adhesives. Amarco Products shall not be responsible for labor costs.

THE REMEDIES STATED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES FOR FAILURE OF OSCODA PLASTICS, INC. ADHESIVES. THERE ARE NO OTHER WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE; EITHER EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE FACE HEREOF. AMARCO PRODUCTS ASSUMES NO LIABILITY FOR CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO LOSS OF PROFITS, DAMAGE TO THE BUILDING OR ITS CONTENTS.

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