



TerraTono™

Application Instructions

System Description

This document outlines the standard application guidelines for installation of the TerraTono decorative flooring system. The system is applied using the following components.

TerraPrime (optional): 100% solids epoxy primer applied at 150 square feet/gallon.

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TerraThane® Blueline: a high solids aliphatic polyurea applied at 125-150 square feet/gallon

TerraTono™ Powder Packs: Specialty pigment packs added to both TerraPrime and TerraThane Blueline prior to application

TerraThane® Satin (optional): a 100% solids aliphatic polyurea with a satin finish applied at 150-200 square feet/gallon

Application Details

1. Concrete Condition

1.1 General

Concrete must be structurally sound and free of oil, grease, and other contaminants. New concrete must be thoroughly cured to prevent shrinkage cracks. Typically, 14 days at 70°F is sufficient.

1.2 Cracks, Sawcuts, Expansion Joints

Cracks, sawcuts, and expansion joints must be identified and characterized prior to installation. Cracks must be evaluated to determine if they are stable or moving. The method of crack treatment is dependent on the type of crack. Sawcuts and expansion joints should not be covered when the surface will experience changing temperatures.

1.3 Moisture

Excess moisture emissions can cause coating delamination. All concrete surfaces should be tested for moisture prior to applying a seamless coating. There are several methods available. ASTM D-4263 is a qualitative test using a plastic sheet. The calcium chloride test provides quantitative results. If moisture emissions exceed 3 lbs./1000 sq. ft., TerraPrime MM may need to be installed prior to application of TerraTono™. Contact applicator for details.

2. Environmental Conditions

2.1 General

Store materials in clean, dry conditions at temperatures between 65°F and 90°F. Surface, air, and material temperatures must be between 65°F and 90°F during application. The temperature must remain within this range for a minimum of 24 hours after application. For necessary working time, humidity should be below 80%. The surface temperature also be at least 5° above the dew point.

2.2 Rising Temperatures

Concrete will release air during periods of rising temperatures. This can result in bubbles in the coating even in apparently well sealed concrete. To prevent bubbling, always apply coatings when the application and cure temperatures will be constant or decreasing.

3. Surface Preparation

3.1 Cleaning

Oil, grease, and other contaminants will inhibit bonding. Remove by first scraping any thick, caked deposits, then by scrubbing with an appropriate cleaner. Always finish with a warm water rinse. Test the treated area with a 1:2 mix of muriatic acid and water. (Always add acid to water.) A white haze of bubbles indicates a clean concrete surface.

3.2 Surface Profile

Surface laitance and loose concrete must be removed. A surface profile equal to 40-60 grit sandpaper is required for proper bonding. Mechanical methods are preferred, although acid etching is acceptable on new concrete. Mechanical preparation is the only acceptable method for old concrete and for new concrete if curing agents, hardeners, or sealers are present.

3.3 Surface Repairs

voids, Popouts: Remove all loose concrete from the damaged area. Fill as necessary with TerraRich or Patch Filler.

Stable Cracks: Minor shrinkage cracks can be filled in with Patchfiller. For wider cracks, route the crack in a “V” cut to a width of ½” and a depth of at least ¼”. Clean the area and fill with Patchfiller.

Moving Cracks: Cracks less than ⅛” : Apply 8-10 mils of TerraFlex 16-24 inches wide centered on the crack.

For larger cracks, saw cut the crack to a width of ½” and a depth of at least 1”. Clean the area and insert closed cell backer rod leaving an opening ½” deep. Fill the crack with TerraFlex and apply 8-10 mils of TerraFlex 16-24 inches wide centered on the crack. This treatment will help prevent the transfer of the crack through the TerraTono system due to minor movement. Primecoat of TerraPrime should be applied prior to application TerraTono™ system.

Expansion Joints: Remove all material from the joint and insert closed cell backer rod. Leave the backer rod protruding from the joint during application to prevent the joint from being filled. Install the flooring up to the backer rod. After installation, depress the backer rod to a depth of ½”. Lightly sand the edges of the flooring system adjacent to the joint. Depress the backer rod, clean the joint, and install an appropriate sealant.

Drains: If a drain is surrounded by a joint, treat as outlined above. Seal all drain openings prior to application

4. Mixing

4.1 Two Component Products

Premix Part A (resin) for 30 seconds with a drill and Jiffler or Hansen mixer. When adding TerraTono Powder Packs into the Part A, mix for an additional 60 seconds. Slowly add Part B (catalyst) and continue mixing for 2 minutes. Mix at medium speed with the mixer immersed in the material to minimize air entrainment. Do not thin products.

5. Application

5.1 TerraPrime (optional)

TerraPrime is a 100% solids epoxy primer/coating.

If additional build is required due to substrate conditions, then a coat of Terraprime can be installed prior to the installation of the TerraTono™ system. Apply with a squeegee at a rate of 125-175 square feet/gallon. Backroll with a 3/8” nap roller to ensure even coverage. If the TerraTono is not applied over the TerraPrime within 24 hours, the surface must be sanded in order to ensure proper adhesion.

TerraPrime will be cured and ready to accept a finish coat in 8-12 hours depending on environmental conditions

5.2 TerraPrime with TerraTono™ Powder Packs

TerraPrime is a 100% solids epoxy primer/coating.

Two TerraTono™ Powder Packs should be added to the Part A side of each TerraPrime 3 gallon kit and mixed thoroughly prior to activation. The TerraPrime should be applied with a squeegee at a minimum rate of 150 square feet/gallon (10-12 mils). A 3/8" nap non-shedding roller should be used to backroll the product and ensure even coverage. It is important to monitor the coverage rate of your product, as significant differences in thickness can effect the final look of the system. Note that as you roll the product, roller lines and color shadowing will be quite apparant. This is normal and will not be visible in the finished product.

TerraPrime will be cured and ready to accept a finish coat in 8-12 hours depending on environmental conditions.

5.3 TerraThane® Blueline with TerraTono™ Powder Pack

TerraThane® Blueline is a high solids aliphatic polyurea coating.

One TerraTono™ Pack should be added to the Part A side of each TerraThane Blueline 3 gallon kit prior to activation and mixed thoroughly. TerraThane® Blueline should be applied with a squeegee at a rate of 125-150 square feet/gallon (10-14 mils). A 3/8" nap non-shedding roller should be used to backroll the product and ensure even coverage. It is imperative to finish rolling as quickly as possible so that the effectorator step can be performed immediately after application of the TerraThane® Blueline. As with the TerraPrime application, distinct roller lines will be apparent, but will disappear upon proper application of Effectorator (or other "swirl" technique if so desired).

TerraThane® Blueline will ready to accept an optional TerraThane Satin coat in 10-14 hours depending on temperature and humidity.

5.3 Effectorator

The Effectorator is a solvent borne product that is used to 'activate' the TerraTono™ effect.

The Effectorator is most effectively applied using a hand pump sprayer with an adjustable nozzle. Application must take place within 15-20 minutes of activation of the TerraThane® Blueline, with adjustments made for enviornmental conditions. Different spray patterns will yield different finished looks, as does timing of spray. The most common and effective method is using a very small droplet pattern, one that typically will yield dime to quarter size "effects" on the floor. The Effectorator should be sprayed over the entire floor to ensure elimination of residual roller lines. The small "effects" created by the spraying will slowly bleed together and create a mottled appearance. Any defect that is not desired can be eliminated by respraying with the effecoration as long as it is done within the 15-20 minute spray window. Usage rates of Effectorater will vary widely depending on technique, but 0.5gallons - 1 gallon/1000 sqft is typical.

5.4 TerraThane® Satin

TerraThane® Satin is a 100% solids aliphatic polyurea finish coat with a satin finish.

A finish coat of Terrathane® Satin can be applied after the TerraThane® Blueline has cured enough to accept spike shoes without marking the floor. TerraThane® Satin should be applied with a squeegee at a rate of 150-200 square feet/gallon and then quickly backrolled with a 3/8" non-shedding roller. TerraThane® Satin can be thinned with xylene at no more than 5% if desired for ease of application.

6. Cleanup

6.1 Two Component Products

Clean all equipment immediately after use with isopropanol (rubbing alcohol) or xylene. Read the MSDS and follow all safety procedures for any cleaning material.

7. Cure Time

7.1 Recoat

All coatings can be recoated as soon as they accept foot traffic. Following are typical times at 70°F.

TerraPrime: 7 hours

TerraTono: 10 hours

TerraThane: 10 hours

All coatings must be recoated within 24 hours. After 24 hours sanding is required before recoating.

7.2 Return to Service

	70°F	85°F
Foot Traffic	16 hours	12 hours
Full Service	72 hours	54 hours

8. Safety

8.1 Storage and Handling

Store products in a cool, dry area away from flames and sparks. Separate resins from hardeners. Material Safety Data Sheets are available and should be read before handling any material. Avoid contact with all materials to prevent irritation. Wear rubber gloves, protective clothing, and safety glasses. Use only with adequate ventilation.

8.2 Composition

TerraPrime contains epoxy and amine resins. TerraThane and TerraThane Satin contain isocyanate and amine resins. .

9. Floor Maintenance

9.1 Cleaning

Do not wash the floor within 5 days of installation. Exposure to water before the floor is completely cured may dull the finish. Avoid harsh chemical cleaning for ten days. To maintain the appearance and maximize the service life of the coating, clean regularly with a mild detergent and a floor scrubber with non-abrasive pads or brushes.

10. Technical Assistance

10.1 American Industrial

1218 W. 41st Street

Suite B

Tulsa, OK 74107

918-445-0627

800-535-5053 (24 hour safety and medical help)

www.aiflooring.com