Terapro 220 and Terapro 250 Traffic Surfacing System

Installer Guide

siplast®

With you every step of the way

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I. System Overview and Products

General

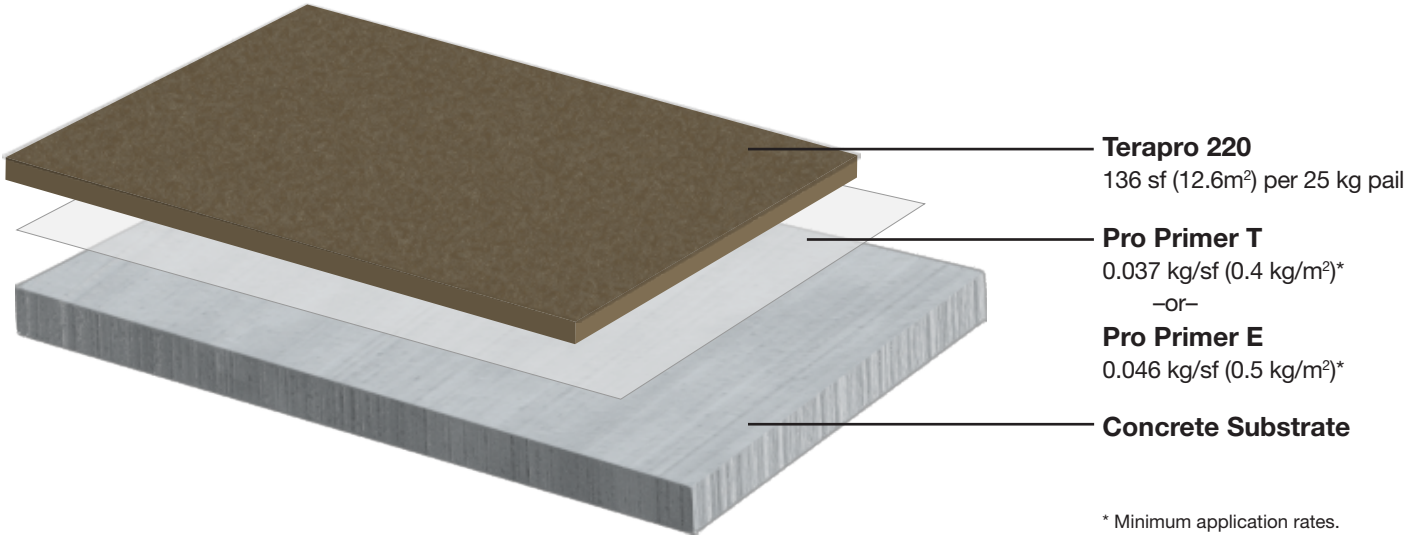
Terapro 220 and 250 Traffic Surfacing Systems are designed to enhance the appearance of concrete surfaces and to help protect the concrete from the damaging effects of contaminants, exposure to the elements, and water intrusion. Terapro 220 and 250 Traffic Surfacing Systems offer the following benefits:

Durability: Terapro 220 and 250 Traffic Surfacing Systems resist traffic wear, are resistant to water damage, and have excellent adhesion properties.

Composition: Terapro 220 and 250 Traffic Surfacing Systems have a low volatile organic compound content and utilize UV-stable pigments that are fade resistant when exposed to harsh sunlight.

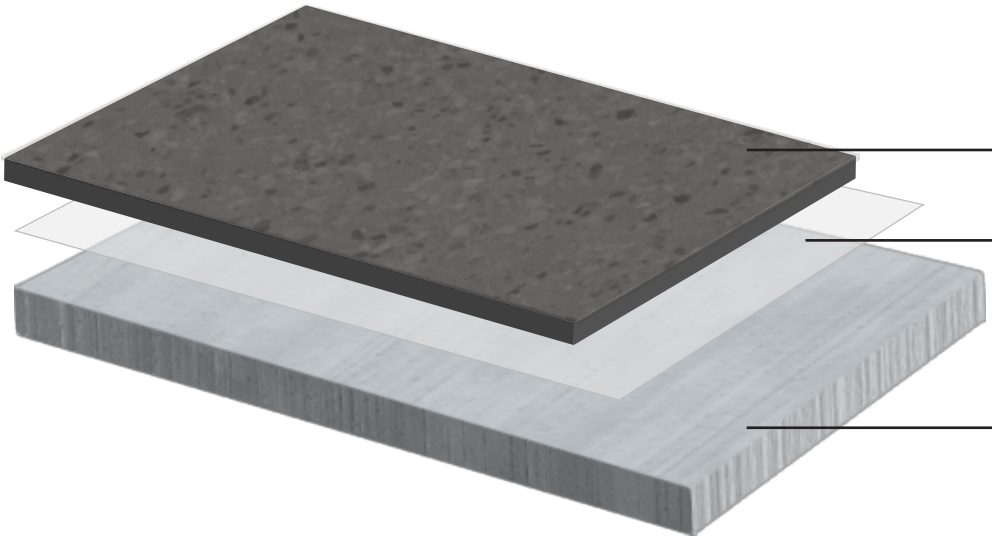
The Terapro 220 and 250 Traffic Surfacing Systems consist of a thick resin/aggregate based PMMA coating layer. The Terapro 220 Traffic Surfacing System contains a smaller aggregate and is designed specifically for use as a coating system for surfaces exposed to pedestrian and light vehicular traffic. The Terapro 250 Traffic Surfacing System contains a larger aggregate and is designed specifically for use as a coating system for surfaces exposed to vehicular traffic.

Terapro 220 Resin/Aggregate – Unreinforced Surfacing System
Substrate: Concrete



* Minimum application rates.

Terapro 250 Resin/Aggregate – Unreinforced Surfacing System
Substrate: Concrete



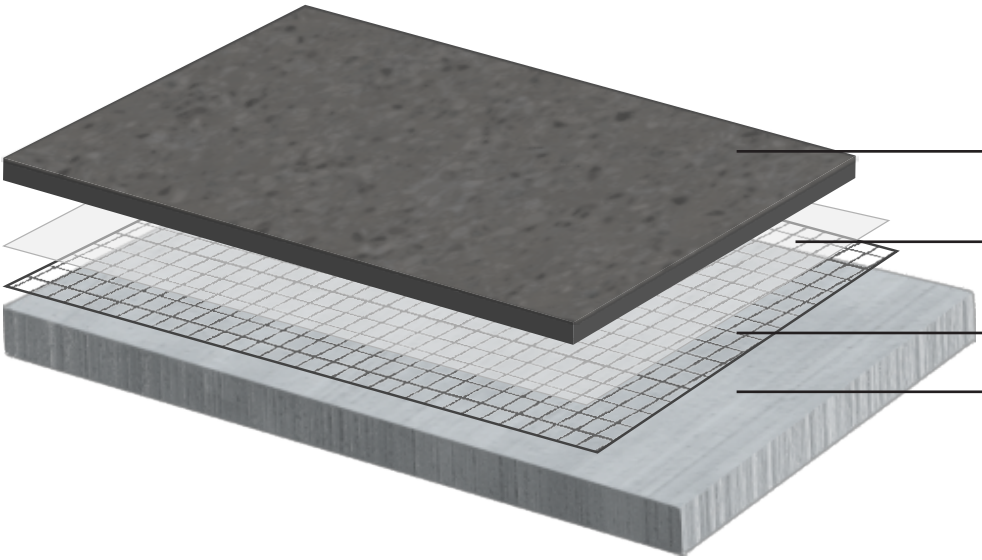
Terapro 250
57.5 sf (5.36m²) per 25 kg pail

Pro Primer T
0.037 kg/sf (0.4 kg/m²)*
–or–
Pro Primer E
0.046 kg/sf (0.5 kg/m²)*

Concrete Substrate

* Minimum application rates.

Terapro 250 Resin/Aggregate Surfacing System – Grid Reinforced
Substrate: Concrete



Terapro 250
57.5 sf (5.36m²) per 25 kg pail

Pro Primer W
0.074 kg/sf (0.8 kg/m²)*

Pro Grid Reinforcement

Concrete Substrate

* Minimum application rates.

Products

The following products are used to construct Terapro 220 and 250 Traffic Surfacing Systems:

Primers

- Pro Primer T
- Pro Primer W
- Pro Primer E

Traffic Surfacing System Components

- Terapro Flashing Resin
- Terapro 220 Resin (pedestrian and light vehicular traffic applications)
- Terapro 250 Resin (vehicular traffic applications)

Accessories

- Pro Catalyst
- Pro Prep or Pro Prep M
- Pro Paste
- Pro Mortar
- Pro Grid Reinforcement (Terapro 250 only)
- Pro Fleece (used in conjunction with Terapro Flashing Resin only)

Weather Restrictions

Do not apply Terapro 220 or Terapro 250 products during precipitation or in the event there is a probability of precipitation during application, if condensation is present on the concrete substrate to be coated, or the ambient temperature is within 5ºF of the dew point. Ambient and substrate temperatures affect the application of Terapro 220 and Terapro 250 materials. Ambient and substrate temperature guidelines and restrictions vary and are noted in the application sections of this guide.

Protection

Upon completion of new system application (including all associated work), use appropriate procedures for protection of finished work during the remainder of the construction period. Protect all areas where the traffic surfacing system has been installed.

II. Personal Protection

Safety and Protection

Refer to the Safety Data Sheet (SDS) for each product in regard to specific PPE information. The products referenced in this guide are flammable, and are harmful if inhaled, swallowed, or absorbed through the skin. They can cause skin, eye, and respiratory irritation, and may cause skin and respiratory sensitization.

Do not smoke, eat, or drink around these products. Keep the products away from open flame, fire, or any ignition source. Avoid breathing Terapro and Pro product vapors and Pro Catalyst dust.

Use the products with adequate ventilation or respiratory protection as needed to keep exposure below threshold limit values (TLV). Do not ingest the products, and avoid contact with eyes, skin, and clothing. Wear suitable gloves and eye/face protection. Wash thoroughly after handling the products. Keep the products out of reach of children.

First aid information is available on Terapro and Pro product SDS documents.

III. Storage

Store products indoors in closed containers in a well-ventilated, cool, dry area away from heat, open fire, any ignition source, direct sunlight, oxidizing agents, strong acids, and strong alkalis. Resin products may auto-polymerize at temperatures greater than 140°F (60°C). Resin product shelf life is 12 months from ship date. The shelf life of resin products will be reduced if the products are stored at temperatures above 77°F (25°C).

In powder form, Pro Catalyst is extremely heat sensitive. Proper storage is important to help ensure safe handling and that product quality is not compromised. To maintain product quality, the storage temperature of Pro Catalyst should not exceed 77°F (25°C). Pro Catalyst Powder is packaged in a specially designed, vented box and should be stored in this box at all times until just prior to use.

The reactivity/effectiveness of Pro Catalyst will decrease progressively when stored under high temperature conditions. Exposure to a temperature of 122°F (50°C) or higher can result in self-accelerating decomposition of Pro Catalyst Powder. Self-accelerating decomposition is signaled by the presence of bright white smoke, and can create temperatures in excess of 500°F (260°C), depending on the environmental conditions and quantity of catalyst present. Such temperatures can be hazardous in the presence of flammable materials. Therefore, Pro Catalyst Powder should never be subjected to conditions that can result in self-accelerating decomposition.

Materials stored on the job site during application should be kept on a pallet in a shaded, well-ventilated area. In unshaded areas, materials should be covered with a white, reflective tarp in a manner that allows air circulation beneath the tarp.

IV. Installation Materials, Tools, and Equipment

Substrate Preparation

- Blower, vacuum, & broom
- Drum scarifier
- Shot blaster with dust collector/air-pulse compressor
- Hand grinder with polycrystalline diamond wheel
- Hand grinders with carbide disk or other appropriate abrasive wheel
- Pro Prep or Pro Prep M
- Pro Primer T, Pro Primer W, Pro Primer E, Pro Primer R
- Pro Catalyst Powder

Mixing

- Plastic tarps or sheeting
- Variable speed drill with ½-inch chuck
- Industrial mortar mixer (double-auger type)
- Mixing agitator
- Mixing stir sticks
- 1-tablespoon measure
- Plastic mixing buckets (1 and 5-gallon capacity)
- Battery operated scale with 40-lb (20-kg) capacity

Application

- Tape (masking and duct tape)
- Margin trowel
- Application brushes
- Spiked/pin roller
- Flat trowel and cement finishing trowel
- Squeegee
- Pro Prep or Pro Prep M
- Disposable heavy duty butyl rubber or nitrile gloves
- Non-shed roller, ⅜" nap

Miscellaneous

- Extension cords
- Clean cotton rags
- Plastic garbage bags
- Box or razor knife
- Infrared thermometer
- Conventional thermometer (ambient temperature)
- Tape measure
- Chalk line

V. General Substrate Preparation

All substrates must be free from gross irregularities, loose or unsound material, foreign material (such as dirt, ice, snow, water, grease, bitumen, oil, release/curing agents, paint/coatings), or any other condition that would be detrimental to the adhesion of the catalyzed primer and/or resin to the substrate. Most surfaces require preparation to generate a substrate suitable to receive Terapro or Pro materials.

Substrate preparation guidelines appear in the following chart, however, unique requirements can vary for a particular situation. In applications where adhesion to a substrate not listed in the chart is required, please contact the Siplast Technical Department at 1-800-922-8800 for information on testing such substrates for adhesion with a laboratory or field bond test.

Substrate	Preparatory Guidelines	Pro Primer W Required	Pro Primer T Required	Pro Primer E Required
Steel, Galvanized Steel, Lead	1, 2, 3, 4			
Stainless Steel, Copper, Aluminum	1, 2, 3, 4, 9			
Galvalume Metal (not approved)				
Paint/Coating	7			
Concrete (horizontal)	1, 5	•	•	
Concrete (vertical)	1, 5	•		
Concrete (high moisture content)	1, 5, 10			•
Concrete Repair Materials	1, 5, 8	•		
Clay, Ceramic Tiles, Brick, CMU	1, 6	•		
Mortar	1, 5	•		

Key to Preparatory Guidelines:

1. Substrate must be clean, dry, and free from gross irregularities, loose material, knots, unsound material, or any foreign material (such as dirt, ice, snow, water, grease, oil, release/curing agents, paint/coatings, sap, glue), or any other condition that would be detrimental to the adhesion of the catalyzed primer and/or resin to the substrate.
2. Remove rust or other oxidation layers.
3. Lightly abrade surface prior to cleaning with Pro Prep or Pro Prep M.
4. Wipe thoroughly with Pro Prep or Pro Prep M prior to application of resins. Allow Pro Prep or Pro Prep M a minimum of 20 minutes drying time after application before continuing. The next application process should be completed within 60 minutes of cleaning with Pro Prep or Pro Prep M.
5. Prepare horizontal cement-based substrates by shot blasting or scarifying followed by shot blasting to ensure that laitance or foreign material and the surface layer are completely removed. Prepare cement or masonry flashing substrates by shot blasting or grinding. New cement-based substrates must be fully cured and meet Siplast moisture content guidelines.
6. Grind surface to remove glaze. Tiles must be on a sound bed without cavitation. Ensure that no moisture is present beneath tiles.
7. Remove all paints and coatings.
8. Refer to concrete repair product manufacturer requirements and Siplast requirements for suitability as a substrate for waterproofing materials. Perform adhesion testing to determine the suitable primer. Prepare by shot blasting.
9. Qualify/prepare substrate and prime with Rust-Oleum™ High Performance V2100 System Enamel Primer (Rust-Oleum part #2182838 Flat Gray) in accordance with Rust-Oleum specifications.
10. See the section covering Pro Primer E on page 13 for concrete substrate evaluation, testing and preparation.

Contact Siplast Technical Support for specific preparation requirements for materials not listed in the above table.

VI. Concrete and Masonry Substrates

General

The concrete substrate should have a minimum compressive strength of 3500 psi (25 N/mm²) and have a maximum moisture content as indicated in the section titled Moisture Content Guidelines on page 7.

Polymer-modified or fast setting mortar/concrete products are acceptable if they have been tested/approved in advance by Siplast. Contact Siplast Technical Services for a list of products that have been tested and approved.

Concrete construction types that require project-specific review by Siplast Technical Support include:

- Split-slabs with a between-slab vapor impermeable membrane.
- Slab-on-grade construction.
- Concrete placed over a metal pan (including vented metal).
- Concrete with a moisture content exceeding published maximums.
- Concrete "T"-type constructions or pre-cast concrete panel construction without an overlay of reinforced concrete.
- Concrete utilizing porous aggregate (lightweight structural concrete)

Concrete substrates listed below should not be considered as a substrate for a Terapro Traffic Surfacing System.

- Concrete that has been treated with curing compounds, surface densifiers or waterproofing agents that cannot be removed in their entirety.
- Concrete contaminated/affected by hydrocarbons, organic compounds such as bitumen (asphalt) or coal tar, alkaline silica reaction (ASR), alkaline aggregate reaction (AAR), chlorides (salts), or unreacted silicates.

New Concrete Pours

Submit the mix design for new concrete pours to Siplast for review prior to placement. Allow new concrete to fully cure. Concrete should not utilize curing agents, penetrating release agents, or be treated with waterproofing materials, as these materials can affect primer penetration and/or adhesion.

Ensure that concrete substrates have a moisture content that is below published values at the time of primer application. New concrete pours may require an extended exposure time before an acceptable moisture content is reached. To prevent delays in system installation, the use of Pro Primer E should be considered when concrete moisture content is anticipated to be high at the time of surfacing system application. For this reason, Pro Primer E is recommended for all new construction projects.

VII. Evaluation of Existing Concrete Substrates

Existing concrete should be cored (3 inches in diameter with a depth of 2 inches) and evaluated by an accredited lab. The number of cores should be sufficient to provide a representation of all areas to be waterproofed. Recommended testing procedures include ion chromatography and infrared spectroscopy. The depth of carbonation should also be determined. The presence of contaminants in the concrete may affect the adhesion of the primer layer. Contaminants include hydrocarbons or other organic compounds, unreacted silicates and chlorides. Concrete affected by alkaline-silica reaction (ASR) or alkaline-aggregate-reaction (AAR) should not be considered as a substrate for a Terapro Surfacing System. The lab should recommend the remedial work required to bring the concrete substrate into a condition suitable to receive the Terapro Surfacing System. Reviewing the performance of an existing coating system is also recommended when evaluating a concrete substrate. If blistering or loss of adhesion of the existing coating is evident, the source of the problem should be investigated and addressed with a plan of action before the existing system is removed and a new system applied.

Moisture Content Guidelines – Concrete Substrates

High moisture levels in both new and existing concrete substrates can adversely affect the adhesion of a Terapro Surfacing System. The presence of moisture can prevent the Pro Primer from penetrating the concrete and affect adhesion. Excessive moisture present beneath a Terapro Surfacing System can also transport soluble salts into the condensation zone beneath the primer, resulting in concrete degradation or osmotic blistering, which can disbond the primer from the concrete surface after the system has been in service for a period of time.

Siplast recommends testing for moisture content in the form of measuring relative humidity within the concrete slab. Relative humidity testing requires specific ambient conditions for the testing period. This may preclude performing moisture testing under hot, cold, or wet weather conditions.

ASTM F2170 “Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes” requires that holes be drilled into the concrete slab. Plastic sleeves are then inserted into the holes. Relative humidity levels within the sleeved cavity are then measured following an equilibrium period. The depth of penetration allows for an understanding of the moisture percent throughout the core of the substrate, rather than the near-surface readings calculated using other test methods.

For a direct application of Pro Primer T or Pro Primer W to a concrete substrate, the following are Siplast guidelines for maximum relative humidity (RH) based upon testing in accordance with the above-listed protocol. The use of Pro Primer E or an approved epoxy-based moisture mitigation system should be considered when the relative humidity within the slab is expected to be above 75% at the time of waterproofing system application.

ASTM Method	Maximum Limit
ASTM F2170	75% Relative Humidity

Siplast does not perform moisture content evaluations. Most independent labs that provide services to design firms that utilize concrete in construction offer the above test. The final acceptance of the concrete substrate is the responsibility of the design authority and/or surfacing system applicator.

Adhesion Testing of Concrete Substrates

Adhesion testing is an excellent indicator of the presence of a weak surface cap (typically carbonated concrete) or unforeseen contaminants such as sealers, oils, or surface moisture that can affect adhesion of the primer layer, although it should not be relied upon as the sole means of evaluation. Adhesion testing is recommended for all concrete surfaces to be considered as a substrate for a Terapro Surfacing System.

Adhesion to concrete is evaluated using a device conforming to ASTM D7234 that utilizes a 50-mm aluminum dolly. The concrete surface should be prepared using the same techniques of surface preparation that will be required, or at minimum, ground to a CSP 2 profile. The dolly is then adhered to the concrete deck surface using the applicable primer for the project. The adhesion value must exceed 220 psi to be considered acceptable.

The results of adhesion testing performed by Siplast personnel are strictly for informational purposes and should be evaluated by the design authority and surfacing system applicator to verify the accuracy, adequacy, and appropriateness of the results.

VIII. Preparation of Concrete Substrates

Concrete preparation methods should be chosen based upon how much of the surface requires removal and the desired concrete surface profile (CSP). For existing concrete substrates, core evaluation will provide the information needed to determine the amount (depth) of concrete to be removed from the surface. Concrete affected by carbonation and/or contamination must be removed in its entirety. Concrete surfaces should be prepared to a profile designated by the International Concrete Repair Institute (ICRI) as CSP 2 through CSP 4 if Pro Primer W or Pro Primer T is to be used and a CSP 3 if Pro Primer E will be used.

Preparation methods for concrete substrates include shotblasting, or scarification followed by shotblasting. Multiple passes with scarification and shot blasting equipment may be required to remove materials from the concrete surface and achieve the desired concrete preparation depth and surface profile. While grinding may be considered for preparation of concrete flashing substrates, it is important to note that generation of the desired surface profile using a grinder can prove difficult.

Concrete preparation should be immediately followed by application of the appropriate Pro Primer without exception. Prolonged exposure of the prepared concrete surface to the elements or traffic conditions may result in contamination and such contamination can adversely affect Pro Primer adhesion.

Concrete Cracks and Joint Treatments

Before application of the Terapro System, cracks and joints should be prepared and treated in accordance with Siplast details. Siplast recommendations for crack and joint preparation and treatment are intended to provide methods on a best effort basis to construct a watertight waterproofing system.

Differential substrate movement at cracks and between divided areas can affect the aesthetics of Terapro surfacing components as well as potentially compromise long-term waterproofing performance. Dynamic (moving) cracks should be investigated, and the causes addressed, before system application. Mechanical expansion joint systems should be considered for treatment of structural expansion joints.

Substrate Leveling & Patching

Following preparation and priming with the appropriate Pro Primer (if required), low areas may be leveled using Pro Paste. Pro Paste may be used to feather to an edge or smooth uneven transitions with a maximum thickness up to 3/16 inch (5 mm) per lift. Pro Mortar Resin must be applied at a mImmum thickness of 3/8 inch (10 mm), with a maximum thickness of 2 inches (50 mm) per lift. Reference the standard details and commercial product data sheets for additional information on the use of Pro Paste or Pro Mortar Resin.

Concrete & Masonry Walls

Masonry walls should be prepared in the same manner as concrete substrates. Terapro materials must not be applied over soft or scaling brick or masonry, faulty mortar joints, or walls with broken, damaged, or leaking coping. Siplast guarantees exclude leaks or damage to the Terapro System resulting from moisture entry through walls above the termination of the Terapro Flashing System.

IX. Masking

1. Masking is done to ensure sharp, aesthetically pleasing edges.
2. Use duct tape, painter's tape, masking tape, or comparable tape to mark edges of the area to be sprayed.
3. Mask off areas where coating or overspray is not wanted using plastic sheeting, tarps, coating shield, paper, or other suitable products.

X. Measuring and Mixing Pro Primers, and Terapro 220 and 250 Resins

General Guidelines

Resin products used in Terapro Traffic Surfacing Systems are fast setting and should only be catalyzed as needed for immediate application. Depending upon the resin type and ambient temperatures, the amount of catalyst needed will vary.

Mixing of Pro Primer E

Pro Primer E should be a minimum of 60ºF (15ºC) at the time of mixing and should only be mixed in full batch quantities. Do not alter mixing ratios, thin or extend Pro Primer E or fill Pro Primer E with rheology modifiers such as fumed silica.

Pierce a hole through the rubber membrane in the lid and continue through the bottom of the lid well. Ensure that Part B in the upper reservoir fully drains into the lower reservoir containing Part A – this may require several piercings. Stir mixture for 5 minutes using a Jiffy Mixer at low speed (approximately 300 rpm) to generate a homogeneous, streak-free consistency. Keep the mixer blades fully submerged during stirring to avoid trapping air. Ensure that the bottom and sides of the container are fully scraped to disperse any materials that may have settled. Pour the mixed material into a clean, secondary container and mix again for an additional 30 seconds.

Mixing of Pro Primer T and Pro Primer W

Thoroughly mix the entire drum of uncatalyzed Pro Primer for 2 minutes prior to pouring off into a second container when batch mixing. This will redistribute liquids/solids that may have separated during storage. Catalyze only the amount of resin that can be used within the anticipated pot life. Add the pre-measured amount of Pro Catalyst to the resin. Stir for 2 minutes using a slow-speed mechanical agitator (a mixing stick can be used for small batches) before applying to the substrate.

Mixing Terapro 220 and Terapro 250 Resins

Thoroughly mix the entire drum of uncatalyzed resin for 5 minutes prior to pouring off into a second container when batch mixing. This will redistribute liquids/solids that may have separated during storage. Catalyze only the amount of resin that can be used within the anticipated pot life. Add the pre-measured amount of Pro Catalyst to the resin. Stir for 2 minutes using a slow-speed mechanical agitator before applying to the substrate.

Liquid Measure of Resins

The amount of Pro Catalyst that should be used is based on the weight of the uncatalyzed resin. Different resin types have different volumes for the same measure of weight. A portable, battery-operated scale is the most accurate means for field measuring resins. Reference the charts in the following section for the appropriate mix ratio by weight and ambient temperature.

XI. Pro Catalyst Charts for PMMA Resins

Pro Catalyst Liquid Mixing Chart
Pro Primer T and Pro Primer W Resins

Resin Quantity	2% Catalyst Ambient Temperature 77°F to 95°F (25°C to 35°C)		4% Catalyst Ambient Temperature 41°F to 77°F (5°C to 25°C)		6% Catalyst Ambient Temperature 32°F to 41°F (0°C to 5°C)	
	Tablespoons	Cups	Tablespoons	Cups	Tablespoons	Cups
1 kg (1.0 liter)	2	n/a	4	n/a	6	n/a
10 kg (10.0 liters)	n/a	1	n/a	2	n/a	3
Substrate temperature range for application of Pro Primer W, T, and R Resins is 32°F to 95°F (0°C to 35°C).						

Pro Catalyst Powder Mixing Chart
Pro Primer T and Pro Primer W Resins

Resin Quantity	2% Catalyst Ambient Temperature 77°F to 95°F (25°C to 35°C)				4% Catalyst Ambient Temperature 41°F to 77°F (5°C to 25°C)				6% Catalyst Ambient Temperature 32°F to 41°F (0°C to 5°C)			
	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags
1.0 kg (1.0 liter)	20	0.02	2	n/a	40	0.04	4	n/a	60	0.06	6	n/a
5.0 kg (5.0 liters)	100	0.1	n/a	1	200	0.2	n/a	2	300	0.3	n/a	3
10.0 kg (10.0 liters)	200	0.2	n/a	2	400	0.4	n/a	4	600	0.6	n/a	6
Substrate temperature range for application of Pro Primer W, T, and R Resins is 32°F to 95°F (0°C to 35°C).												

Pro Catalyst Powder Mixing Chart Terapro 220 and Terapro 250 Resins				
The amount of Pro Catalyst Powder required will vary depending upon ambient temperature as indicated in the following table:				
Resin Quantity	Catalyst Quantity Ambient Temperature 32ºF to 59ºF (0ºC to 15ºC)		Catalyst Quantity Ambient Temperature 59ºF to 95ºF (15ºC to 35ºC)	
	Tblsp.	0.1-kg Bags	Tblsp.	0.1-kg Bags
1.0 kg	2	n/a	1	n/a
12.5 kg	n/a	2	n/a	1
25.0 kg	n/a	4	n/a	2
Substrate temperature range for application of Terapro 220 and 250 Resins is 32°F to 95° (0°C to 35°C).				

XII. Terapro 220 and Terapro 250 Traffic Surfacing Application

Primer Application

General Application Guidelines for Pro Primers

Priming with catalyzed Pro Primer T Resin is required prior to application of Unreinforced Terapro Traffic Surfacing Systems where horizontal areas of concrete are to be treated. Pro Primer W is required for vertical concrete surfaces, over Pro Grid Reinforcement on horizontal concrete surfaces, and other substrates as outlined in the substrate preparation chart on page 6. Pro Primer E may be required for concrete substrates having a high moisture content. For specific priming requirements, refer to the substrate preparation chart on page 6 of this guide.

Pro Primer T and Pro Primer W

See the table below for ambient and substrate temperature limitations when applying Pro Primer T or Pro Primer W.

Discontinue primer application when the ambient and/or substrate temperature is outside of the range outlined above. In warm temperatures, shade the substrate for a sufficient period of time both prior to and during application, as necessary, to maintain substrate temperatures below 95ºF (35ºC).

Ambient & Substrate Temperature Limitations Pro Primer T and Pro Primer W	
Minimum Ambient and Substrate Temperature	32ºF (0ºC)
Maximum Ambient and Substrate Temperature	95ºF (35ºC)

Pro Primer T and Pro Primer W are applied with a roller and can be covered with Terapro 220 Resin/Aggregate Pedestrian Traffic Coating, Terapro 250 Resin/Aggregate Vehicular Traffic Coating, or Terapro Flashing Resin after the primer is cured, generally a minimum of 45 minutes following application. Pro Primers should be applied when ambient and substrate temperatures are falling rather than rising to minimize the potential for pinholing. Pro Primer T and Pro Primer W can be exposed for up to 6 months. If work is interrupted for more than 12 hours, or the surface of the primer becomes dirty or contaminated from exposure to the elements, thoroughly clean the in-place and cured primer with Pro Prep or Pro Prep M. Pro Prep and Pro Prep M should be allowed a

minimum of 20 minutes drying time after application before continuing. Following the drying time, the next application process should be completed within 1 hour.

Application Rates (minimum) Pro Primer T and Pro Primer W	
Pro Primer W over Vertical Concrete, and other Substrates listed on page 6 (unreinforced traffic surfacing systems)	0.037 kg/sf (3.7 kg/sq) (0.4 kg/m²)
Pro Primer T	
Pro Primer W over Pro Grid Reinforcement placed on Horizontal Concrete Substrates	0.074 kg/sf (7.4 kg/sq) (0.8 kg/m²)

NOTE: Application rates may vary depending upon substrate profile and porosity. The application and yield rates indicated above are minimum values and do not include waste such as the resin required to saturate roller covers and brushes.

Pot Life & Set/Cure Times at 68°F (20°C) Pro Primer T and Pro Primer W	
Pot Life	15 minutes
Rain Proof	25 minutes
Ready for Next Coat	45 minutes

NOTE: Pot life will be reduced if the resin or liquid/aggregate mixture is at higher temperatures. Pot life can be maximized by storing product under controlled conditions and ensuring that the liquid resin and aggregate are at the low range of minimum storage temperature during/following catalyzation and prior to application. In warm temperatures, the substrate should be shaded for a sufficient period of time both prior to and during application, as necessary, to maintain substrate temperatures below published maximums.

Pot Life and Set/Cure Times for Pro Primer T and Pro Primer W

Pot life and set/cure times noted above are approximate and may vary with ambient conditions. The information provided is based on laboratory conditions, and is intended for use as a guideline only. Actual pot life and set/cure times should be established in the field, based on actual field conditions.

Pro Primer E
General Information

Priming with Pro Primer E is required prior to application of Terapro Surfacing Systems over approved concrete substrates where the moisture content is higher than that allowable for application of PMMA-based Pro Primers.

Mixing Pro Primer E

Pro Primer E is supplied in kit form that requires mixing in full kit quantities. Maintain Pro Primer E at a minimum of 60ºF (15ºC) at the time of mixing. Pierce a hole through the rubber membrane in the lid and continue through the bottom of the lid well. Ensure that Part B in the upper reservoir fully drains into the lower reservoir containing Part A – this may require several piercings. Stir mixture for 5 minutes using a Jiffy Mixer at low speed (approximately 300 rpm) to generate a homogeneous, streak-free consistency. Keep the mixer blades fully submerged during stirring to avoid trapping air. Pour the mixed material into a clean, secondary container and mix again for an additional 30 seconds. Ensure that the bottom and sides of the container are fully scraped to disperse any materials that may have settled.

Ambient & Substrate Temperature Limitations Pro Primer E	
Minimum Ambient and Substrate Temperature	45ºF (8ºC)
Maximum Ambient and Substrate Temperature	95ºF (35ºC)

Application of Pro Primer E

See the information above for ambient and substrate temperature limitations when applying Pro Primer E. In warm temperatures, the substrate should be shaded for a sufficient period of time, as necessary, to maintain substrate temperatures below 95ºF (35ºC). Pro Primer E should always be applied when ambient and substrate temperatures are falling rather than rising to minimize the potential for the formation of pinholes in the applied primer. Ensure that the primer system will be protected from direct sunlight, wind, precipitation/condensation, and bond-inhibiting surface contaminants (dust, dirt and tear-off debris) during the curing process.

Prior to application of Pro Primer E, wet the qualified and prepared concrete substrate and ensure that it is saturated-surface-dry (SSD). Saturated-surface-dry is a condition in which the substrate is wetted but no standing or ponding water is present. Pro Primer E is applied with a brush or roller. Following application, use a brush to scrub the primer into the concrete surface. Follow the scrubbing process by using a non-shed roller to ensure that the Pro Primer E is distributed evenly and that there is a continuous layer of primer. The use of a spiked roller is recommended if outgassing is experienced. Allow the primer to cure for 12 hours. Pro Primer E must be overlaid with catalyzed Parapro resins within 48 hours of primer application without exception. Thoroughly clean the Pro Primer E surface with warm water, or Pro Prep, or Pro Prep M prior to application of Terapro or Pro resins. Allow the water and/or Pro Prep or Pro Prep M to fully dry before application of Terapro or Pro resins.

Pot life and set/cure times noted below are approximate and may vary. The information provided is based on laboratory conditions, and is intended for use as a guideline only. Actual pot life, set/cure times and pot life should be established in the field, based on actual field conditions. The maximum exposure time of Pro Primer E should not be exceeded.

Application Rates (minimum) Pro Primer E	
Pro Primer E over approved concrete substrate having an internal RH of up to 75%	0.032 kg/sf (3.2 kg/sq) (0.35 kg/m²)
Pro Primer E over approved concrete substrate having an internal RH of 75% to 100%	0.046 kg/sf (4.6 kg/sq) (0.5 kg/m²)

NOTE: Application rates may vary depending upon substrate profile and porosity. The application and yield rates indicated above are minimum values and do not include waste such as the resin required to saturate roller covers and brushes.

Pot Life & Set/Cure Times Pro Primer E	
Pot Life (approx.)	30 minutes
Typical Set/Cure Time for Pro Primer E prior to application of Parapro or Pro Resins (typical)	12 hours
Maximum exposure time prior to application of Terapro or Pro Resins	48 hours

Terapro Flashing System General Application Guidelines

Terapro Flashing Resin, when catalyzed, is combined with Pro Fleece to form a monolithic, reinforced flashing membrane used for flashing details. Terapro Flashing Resin is available in two formulations: Summer Grade and Winter Grade. Care should be taken to ensure that the correct formulation of Terapro Flashing Resin (Summer Grade or Winter Grade) is chosen for the application based upon the ambient temperature. All flashing/penetration applications installed in conjunction with the Terapro Waterproofing and Surfacing System must be completed prior to the field waterproofing membrane application.

See the information below for ambient and substrate temperature limitations when applying Terapro Flashing Resin.

An even, generous base coat of catalyzed Terapro Flashing Resin is applied to the substrate with a roller or brush. Pro Fleece reinforcement is worked into the wet, catalyzed Terapro Flashing Resin base coat using a roller or brush to fully embed the fleece into the resin and remove trapped air. Overlap Pro Fleece a minimum of two inches (51 mm). An additional coat of catalyzed Terapro Flashing Resin must be placed between all layers of overlapping fleece. Extend catalyzed Terapro Flashing Resin a maximum of 1/4-inch beyond the Pro Fleece reinforcement. Apply an even, generous top coat of catalyzed Terapro Flashing Resin immediately following embedment of the Pro Fleece to ensure full saturation of the fleece reinforcement.

If work is interrupted for more than 12 hours, or the surface of the catalyzed Terapro Flashing Resin becomes dirty or contaminated from exposure to the elements, thoroughly clean the transition area with Pro Prep or Pro Prep M. Pro Prep and Pro Prep M should be allowed a minimum of 20 minutes drying time after application before continuing work. Following the drying time, the next application process should be completed within 1 hour.

See Section on Summary of Application Rates and Unit Coverage on page 16 for Terapro Flashing Resin application rates and coverage per unit.

Terapro Flashing Resin Pot Life and Set/Cure Times

Pot life and set/cure times noted below are approximate, and may vary. The information provided is based on laboratory conditions, and is intended for use as a guideline only. Actual pot life and set/cure times should be established in the field, based on actual field conditions.

Pro Grid Reinforcement

Pro Grid Reinforcement is a fiberglass scrim reinforcement layer used in field applications of Terapro Waterproofing Systems over occupied (interior) spaces.

Pro Grid Sizes

ProGrid Reinforcement is available in a 47-inch (1194 mm) wide roll for use in construction of the Terapro Systems.

General Resin/Aggregate Coating Application Guidelines
Terapro 220 and Terapro 250 Resin/Aggregates may be applied when the ambient and substrate temperature is between 32°F and 95°F (0’ C and 35°C).

In warm temperatures, the substrate should be shaded immediately prior to and during application, as necessary, to maintain the substrate at temperatures below the high temperature threshold for the resin product to be used. The use of an infrared thermometer is recommended for measuring substrate temperature.

Ambient & Substrate Temperature Limitations Terapro Flashing Resin	
Summer Grade Terapro Flashing Resin Ambient Temperature Range	59°F to 95°F (15°C to 35°C)
Summer Grade Terapro Flashing Resin Substrate Temperature Range	59°F to 122°F (15°C to 50°C)
Winter Grade Terapro Flashing Resin Ambient Temperature Range	23°F to 68°F (-5°C to 20°C)
Winter Grade Terapro Flashing Resin Substrate Temperature Range	23°F to 77°F (-5°C to 25°C)

NOTE: Discontinue resin application when the ambient and/or substrate temperatures are outside of the ranges listed above. In warm temperatures, the substrate should be shaded for a sufficient period of time both prior to and during application, as necessary, to maintain substrate temperatures below published minimums.

Resin/Aggregate Coating Application – Unreinforced Systems

After qualification/preparation and priming the prepared substrate with the appropriate primer, the catalyzed resin mixture is squeegee applied and backrolled using a conventional nap roller. Please note that the primer layer must be allowed sufficient time to cure prior to application of the resin/aggregate coating.

Application Guidelines – Grid Reinforced Terapro Surfacing Systems:

Loose lay a layer of Pro Grid Reinforcement over the prepared substrate. Prime prepared concrete substrates and Pro Grid Reinforcement using Pro Primer W.

After installation of the grid reinforcement and application of the appropriate primer, the catalyzed resin mixture is squeegee applied and backrolled using a conventional nap roller. Please note that the primer layer must be allowed sufficient time to cure prior to application of the resin/aggregate coating.

Note: Epoxy primer should only be used in conjunction with Grid-Reinforced Terapro Waterproofing Systems to prepare concrete substrates with a moisture value greater than 75% relative humidity in accordance with ASTM F2170. Epoxy primer is not approved for embedment of grid reinforcement and should only be used in addition to Pro Primer W in such applications.

Pot Life & Set/Cure Times at 68°F (20°C) Terapro Flashing Resin	
Pot Life	15 minutes
Rain Proof	30 minutes
Ready for Next Coat	45 minutes
Ready for Foot Traffic	2 hours

NOTE: Pot life will be reduced if the resin or liquid/aggregate mixture is at higher temperatures. Pot life can be maximized by storing product under controlled conditions and ensuring that the liquid resin and aggregate are at the low range of minimum storage temperature during/following catalyzation and prior to application. Minimum set times noted above are approximate and may vary. The information provided is based on laboratory conditions and is intended for use as a guideline only. Actual set/cure times should be established in the field, based upon actual field conditions.

Terapro Flashing System – Application

1. Using tape, mask the perimeter of the area to be flashed to ensure a clean edge. Prime the substrate with Pro Primer W or Pro Primer T (depending on substrate) and allow to cure for 45 minutes.

2. Over the primed substrate, apply a base coat of catalyzed Terapro Flashing Resin with a roller or brush. Work Pro Fleece reinforcement into the wet, catalyzed flashing resin base coat using a roller or brush to fully embed the fleece in the resin and remove trapped air.

3. Apply an even top coat of Terapro Flashing Resin immediately following embedment of the fleece to ensure full saturation of the fleece. Remove tape before the resin sets.

Terapro Surfacing System – Application (Pro Grid Reinforced System shown)

1. Pro Grid Reinforcement is loose laid over the prepared concrete substrate with adjacent runs of reinforcement tightly abutted, but not overlapped.

2. Apply a layer of Pro Primer W over the Pro Grid Reinforcement at the rate of 0.074 kg/sf (7.4 kg/sq) (0.8 kg/m²).

3. Over the primed substrate, pour the appropriate amount of catalyzed Terapro 220 or 250 Resin into place and distribute using a squeegee (see the table below).

Application Rates for Terapro Pro 220 and 250			
Product	Application Rate	Approx. Thickness	Approx. Coverage per Pail
Terapro 220	0.185 kg/ft² (2.00 kg/m²)	46 mils (1.16 mm)	134 ft² (12.44 m²)
Terapro 250	0.371 kg/ft² (4.00 kg/m²)	90 mils (2.3 mm)	57.5 ft² (5.34 m²)

Pot Life – Terapro 220 and Terapro 250 Resin/ Aggregate Coating

The pot life of Terapro 220 and Terapro 250 is approximately 15 minutes when the catalyzed liquid is at 68°F (20°C). Pot life will be reduced if the resin is at higher temperatures. Pot life can be maximized by storing product under controlled conditions and ensuring that the liquid resin is at the low range of minimum storage temperature during/following catalyzation and prior to application.

Set Times

Minimum set times noted below are approximate, and may vary. The information provided is based on laboratory conditions, and is intended for use as a guideline only. Actual set times and cure times should be established in the field, based on actual field conditions.

Resists Rainwater Wash-off at 68°F (20°C): 30 minutes
Ready for Traffic: 2 hours

XIII. Care

Terapro Traffic Surfacing Systems help protect concrete from aging and weathering by providing a renewable surface. Caring for the project will not only help preserve the look of the project, but potentially lengthen its overall lifespan.

Keep the Surface Clean

Dirt, Sand, and Gravel: If dirt, sand, or gravel are present at the interface between vehicle tires and the Terapro Traffic Surfacing System, a grinding action will occur. This will result in premature wear of the coating.

Oil Stains: Mild oil leaks typically will not damage a Terapro 220 or Terapro 250 coated surface other than being unsightly. To remove oil stains, use a mild degreaser or detergent.

Leaves: In certain climates, some types of leaves can stain a Terapro 220 or Terapro 250 coated surface. Light colored leaves tend to cause stains more readily than darker ones. In areas where leaf staining may be a problem, regular leaf cleaning is recommended.

Chewing Gum: Removal of chewing gum from pavement surfaces can be difficult. Use ice to freeze the gum, and then chip off the gum with a small paint scraper. Use care not to damage the underlying Terapro 220 or Terapro 250 surface.

Note: Pressure washing Terapro 220 or Terapro 250 surfaces is acceptable, but exercise caution when using extremely high pressure commercial pressure washers. Extremely powerful water jets can cause damage to the Terapro Traffic Surfacing System and the underlying concrete or asphalt pavement. Siplast recommends 1600 psi or less when directly cleaning the surface. Alternatively, use road sweeper vehicles that are equipped with nylon rotating brushes and water sprayer/ jet nozzles to remove dirt from the surface. Do not use rotating brushes with steel bristles, as that may cause damage and premature wear of the surfacing system.

XIV. Maintenance

Recoating

Terapro Traffic Surfacing Systems can help provide a renewable surface. Generally, the only maintenance required is recoating the surface. Recoating a worn area requires the same climate conditions and installation methods as a new application.

Terapro Traffic Surfacing System projects typically can be recoated at any time to make an old project look new. When doing maintenance, apply more coating to the areas that have experienced more focused wear. Targeting the areas that receive more traffic by applying more coating will allow for longer wear and more cost effective maintenance cycles.

Contact the Siplast Technical Department for additional information regarding resurfacing options.

XV. Repair

Although Terapro Traffic Surfacing Systems are highly durable and long lasting, they are subject to the quality of the substrate on which they are applied. Occasionally, substrate repair may be required. The following key factors should always be considered when performing repairs to optimize the final look.

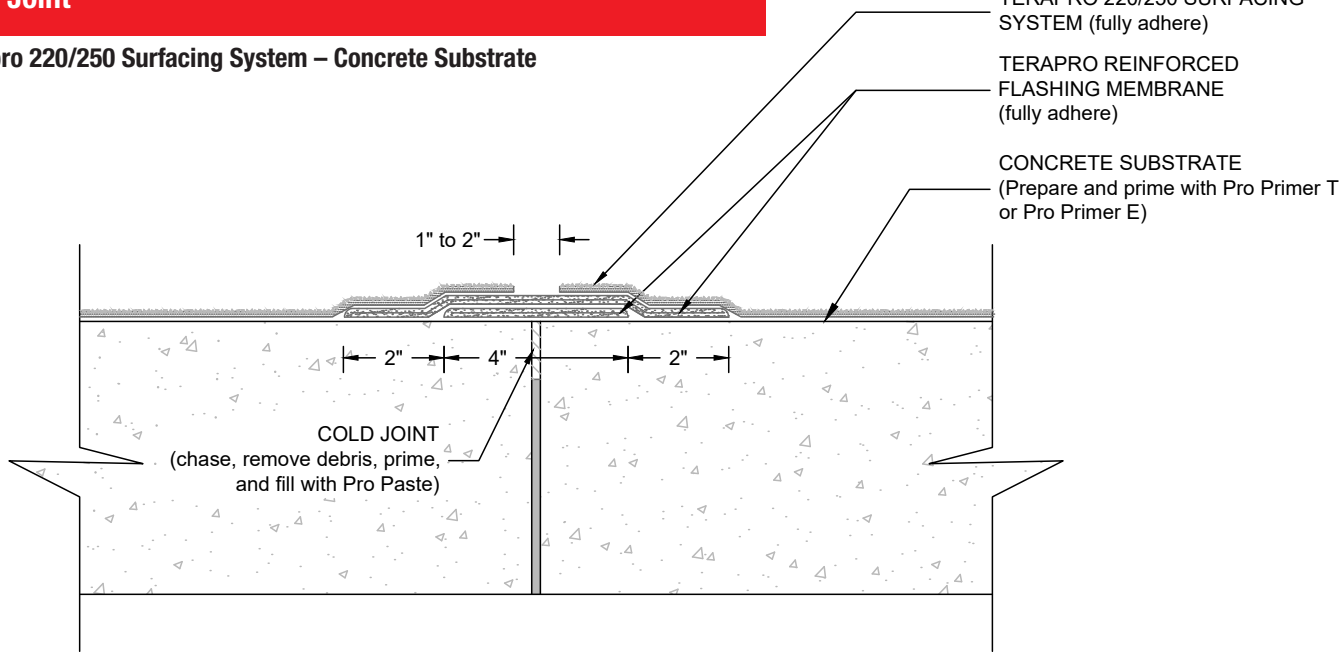
1. Substrate Removal: For repairs that require substrate removal, always use a saw to make cuts within joints if possible, as cuts outside of joints may be visible when the project is finished.

2. Substrate Replacement: When replacing a section of concrete substrate that has been removed, ensure that the new concrete is properly leveled so it sits flush with the existing concrete surface.

Terapro 220 Pedestrian Traffic Surfacing Systems and Unreinforced Terapro 250 Vehicular Traffic Surfacing Systems may be eligible for a 5-year PMMA Surfacing Material Limited Warranty. Reinforced Terapro 250 Traffic Surfacing Systems may be eligible for a 5-year or 10-year PMMA Surfacing Material Limited Warranty. Additional requirements apply. Contact Siplast for more information regarding limited warranty eligibility. Refer to the actual limited warranties, available at siplast.com, for complete coverage and restrictions.

Cold Joint

Terapro 220/250 Surfacing System – Concrete Substrate

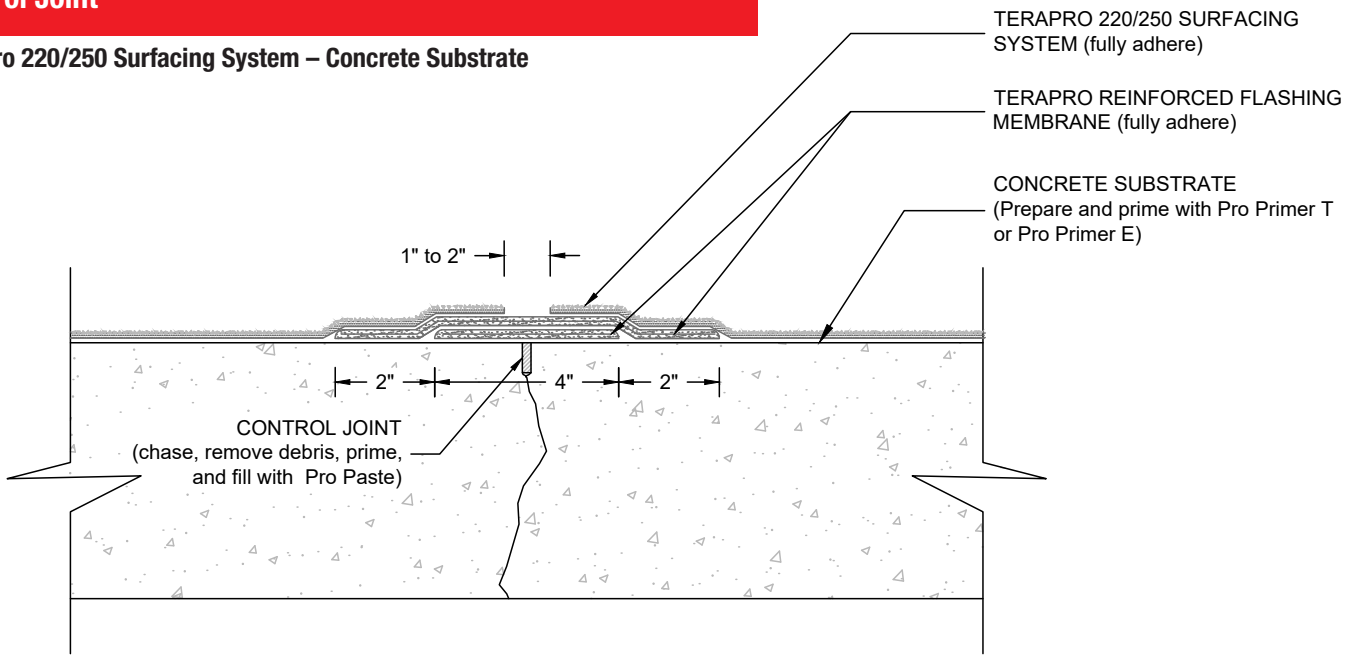


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. HOLD BACK THE SURFACING RESIN IN A 1" TO 2" BAND CENTERED OVER THE JOINT.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Control Joint

Terapro 220/250 Surfacing System – Concrete Substrate

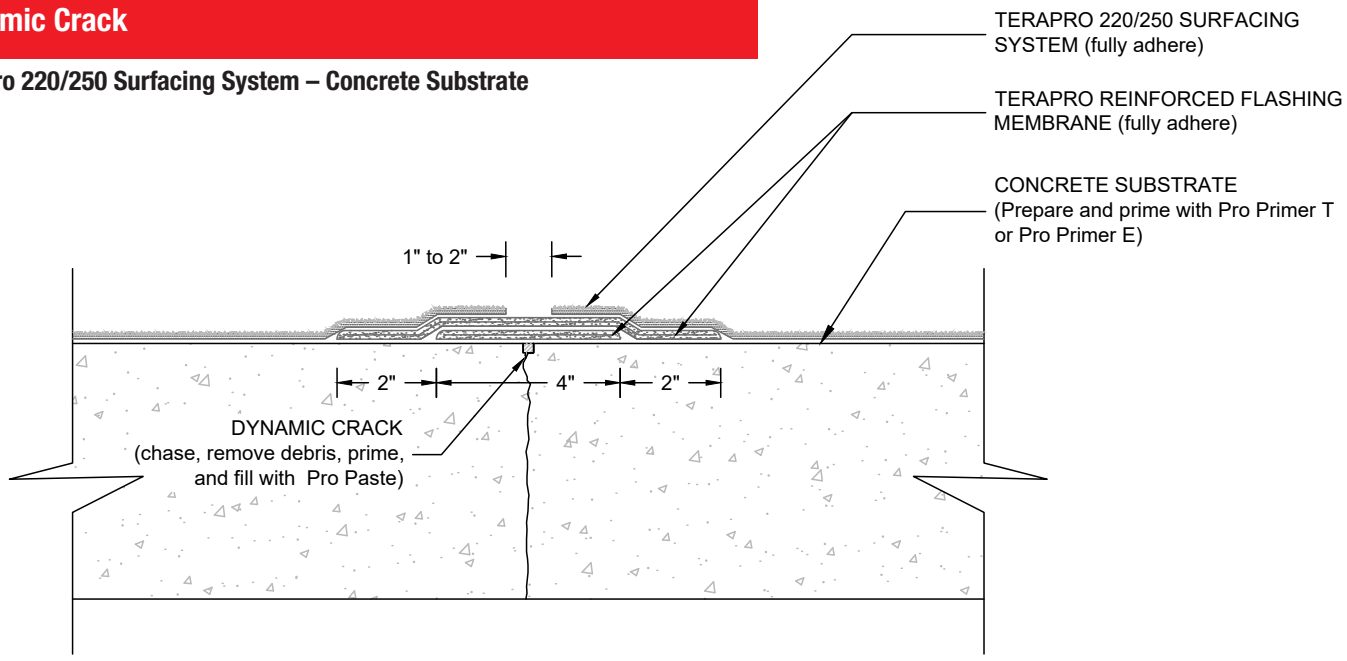


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. HOLD BACK THE SURFACING RESIN IN A 1" TO 2" BAND CENTERED OVER THE JOINT.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Dynamic Crack

Terapro 220/250 Surfacing System – Concrete Substrate

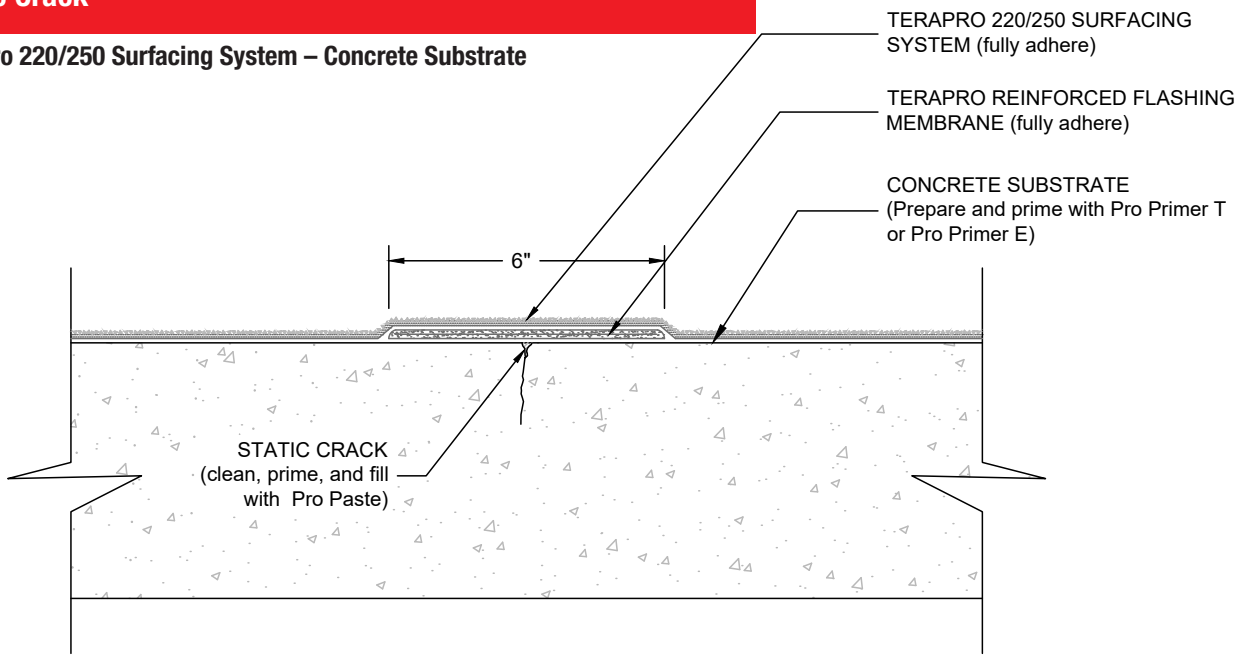


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. SIPLAST RECOMMENDATIONS FOR PREPARATION AND TREATMENT OF DYNAMIC CRACKS ARE OFFERED ON A BEST-EFFORT BASIS AND ARE NOT A GUARANTEE THAT UNDERLYING CRACKS HAVING A WIDTH IN EXCESS OF 1/16-INCH WILL NOT ADVERSELY AFFECT THE PERFORMANCE OF THE TERAPRO SYSTEM. HOLDING BACK SURFACING RESIN IN A 1" TO 2"-INCH BAND CENTERED OVER THE CRACK WILL MINIMIZE THE POTENTIAL FOR CRACKING OF SURFACING COMPONENTS.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Static Crack

Terapro 220/250 Surfacing System – Concrete Substrate

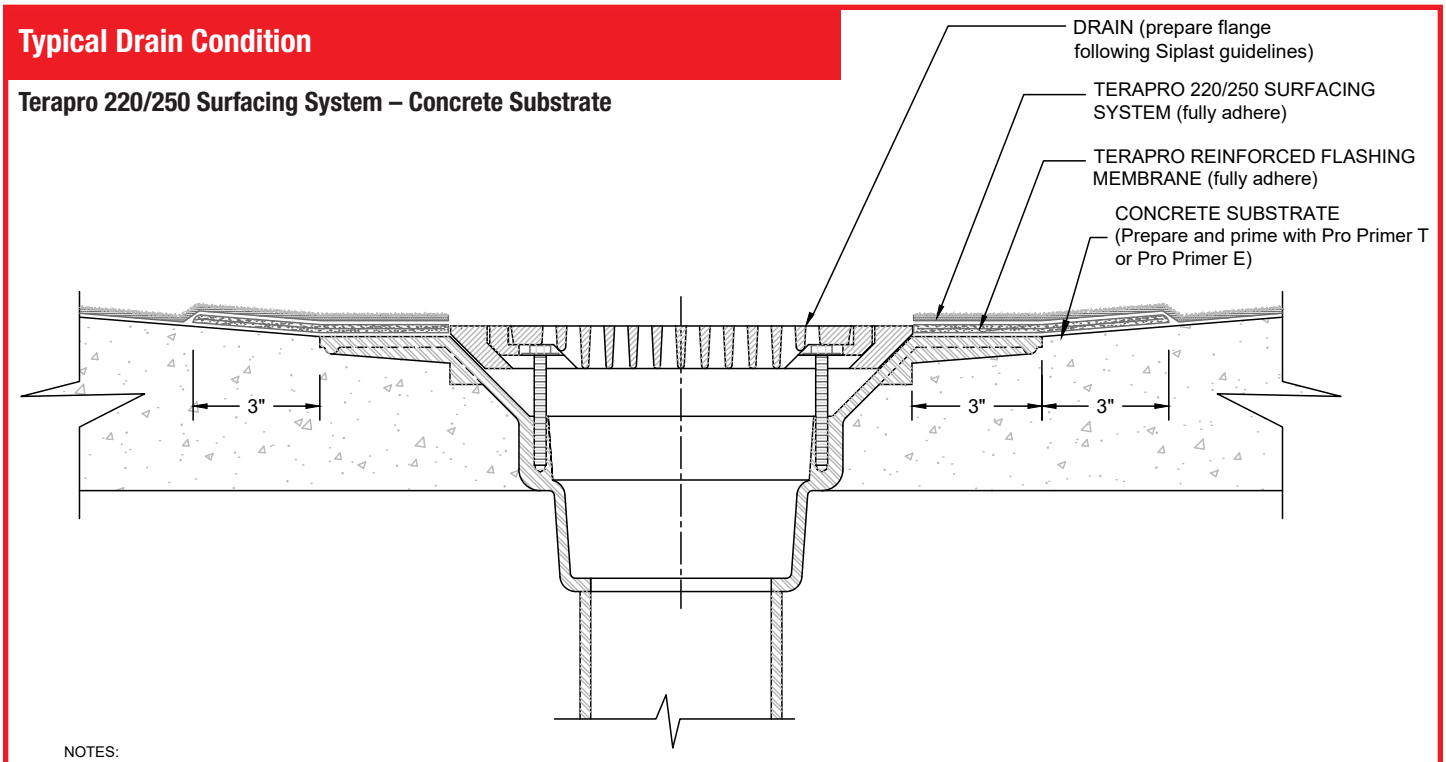


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. IF THERE IS ANY DOUBT AS TO THE DYNAMIC NATURE OF THE CRACK, THE USE OF AN ADDITIONAL 6" AND 12" BAND OF RESIN/FLEECE/RESIN IS RECOMMENDED.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Typical Drain Condition

Terapro 220/250 Surfacing System – Concrete Substrate

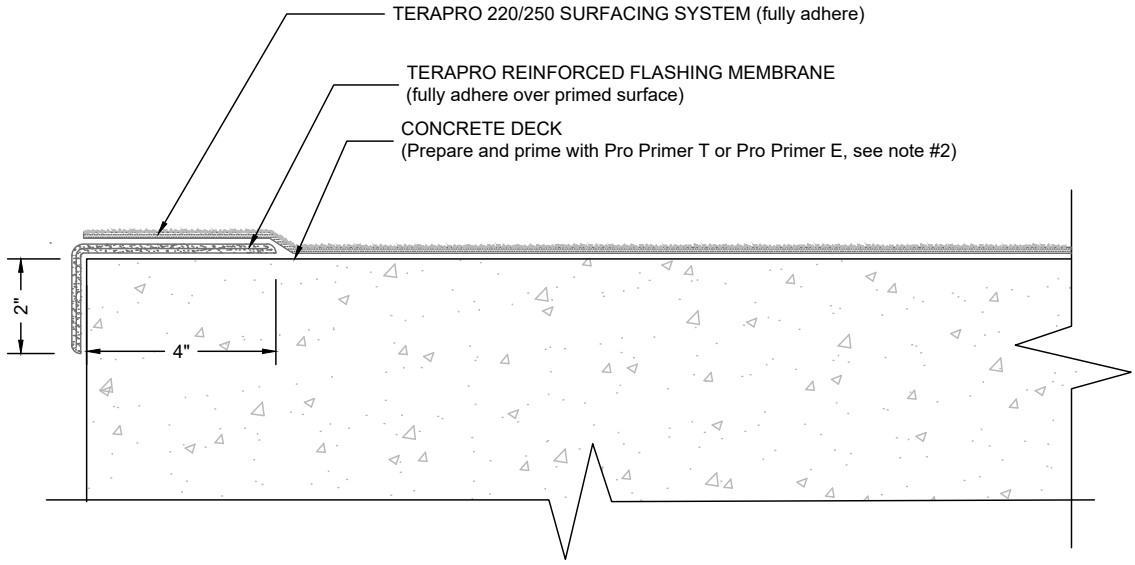


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. THE DRAIN ASSEMBLY SHOULD BE INSTALLED ACCORDING TO THE DRAIN MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Edge Self-Termination

Terapro 220/250 Surfacing System – Concrete Substrate

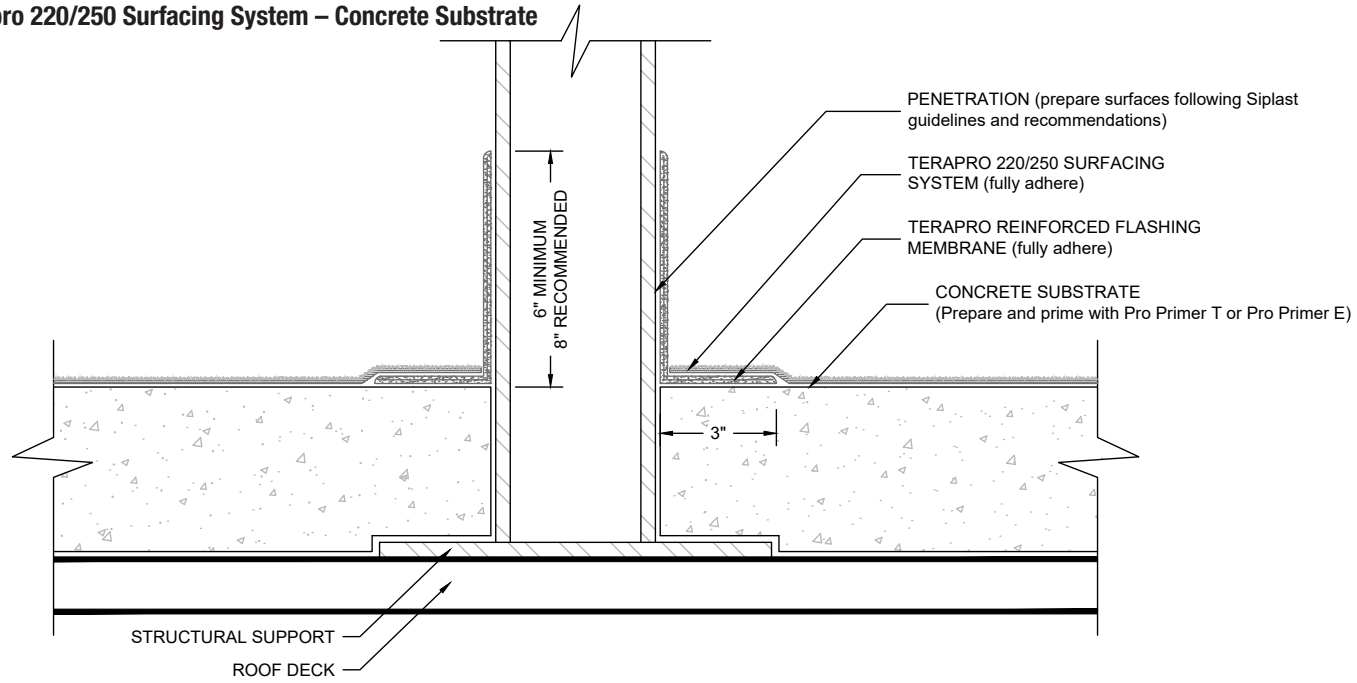


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE PREPARATION OF ALL SUBSTRATES PRIOR TO APPLICATION OF TERAPRO MATERIALS.
2. QUALIFY THE CONCRETE SUBSTRATE IN ACCORDANCE WITH SIPLAST SPECIFICATIONS AND MECHANICALLY PREPARE TO A CSP 2 TO CSP 4 PROFILE.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Typical Penetration

Terapro 220/250 Surfacing System – Concrete Substrate

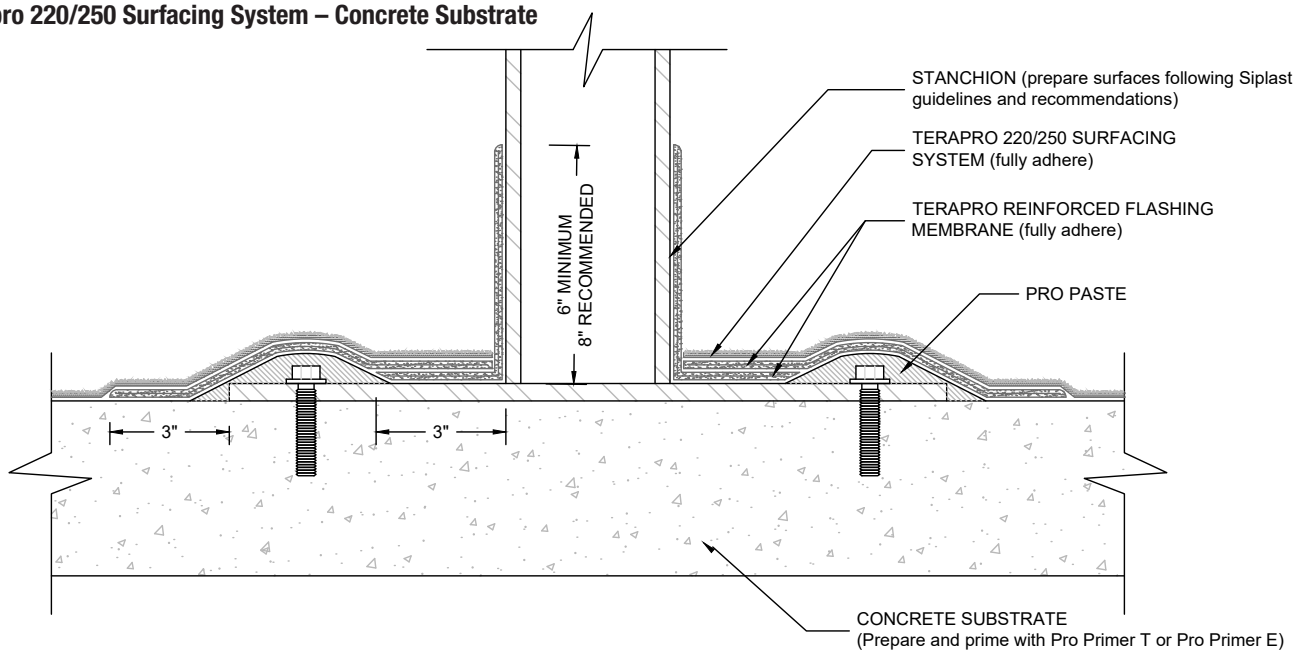


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Stanchion with Anchored Foot Plate

Terapro 220/250 Surfacing System – Concrete Substrate

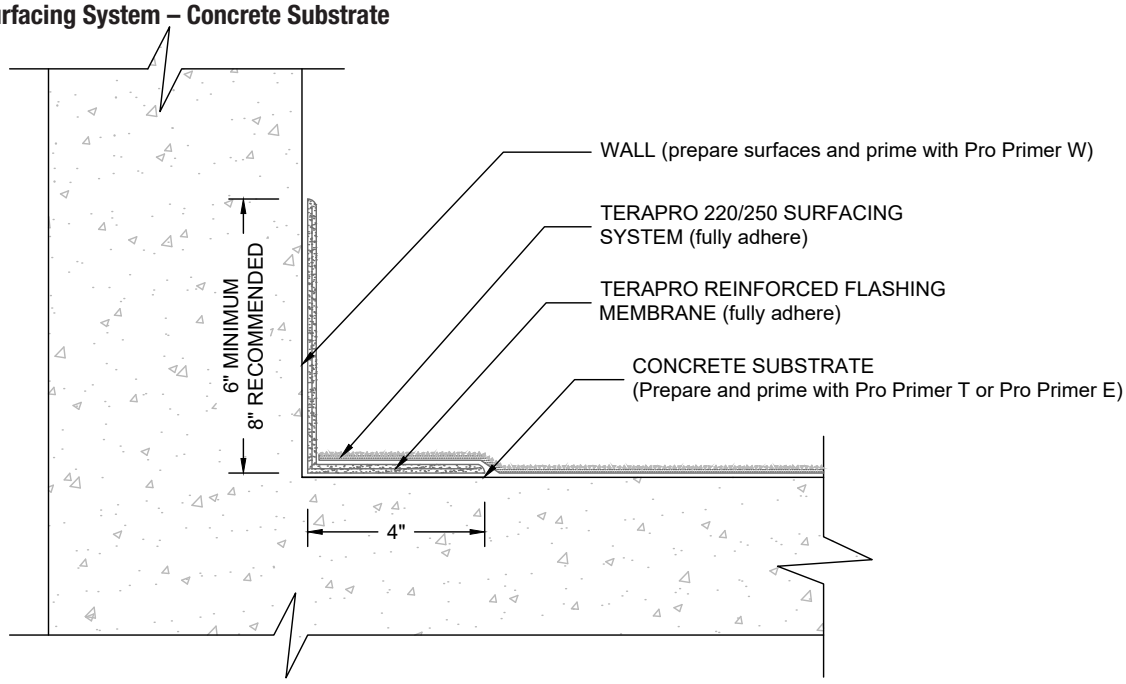


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

Wall Flashing (Monolithic Wall/Deck)

Terapro 220/250 Surfacing System – Concrete Substrate



NOTES:
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2. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

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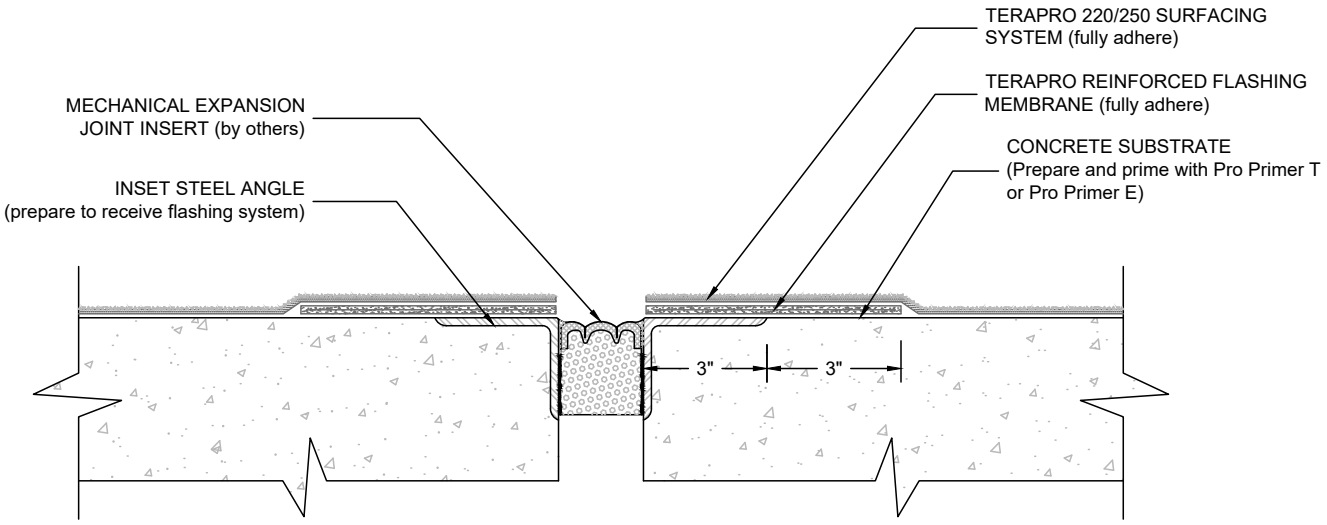
Mechanical Expansion Joint Insert – Horizontal

Terapro 220/250 Surfacing System – Concrete Substrate

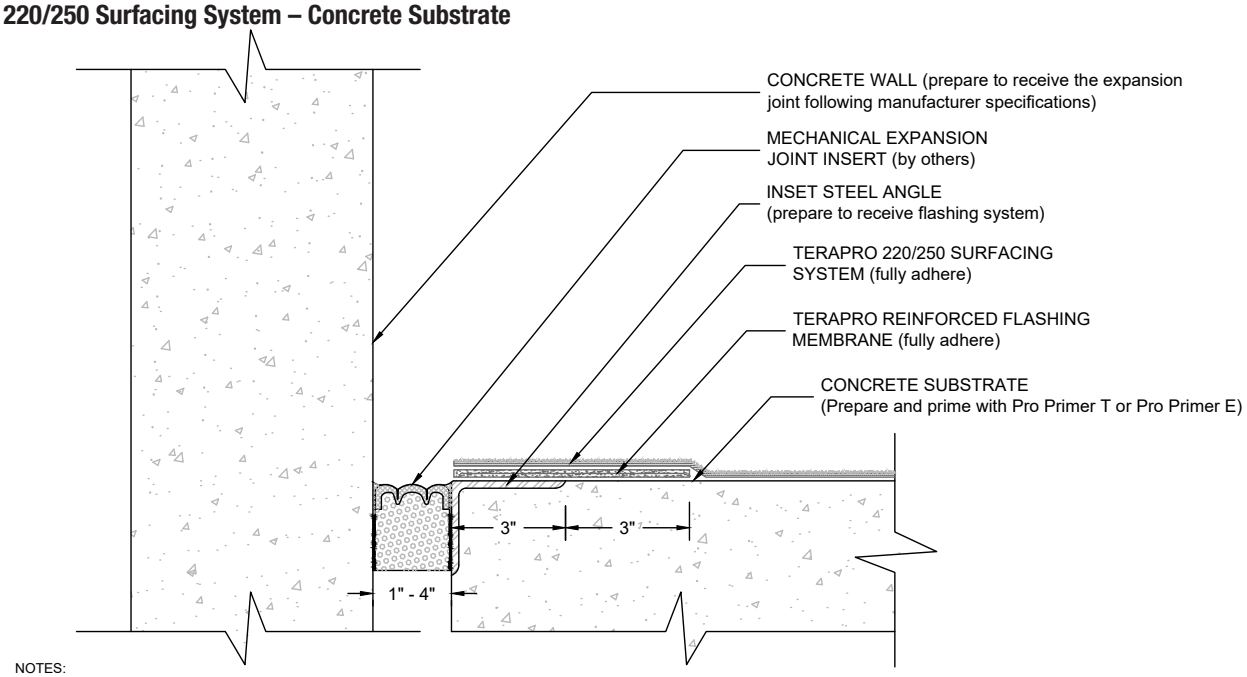


NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. THE EXPANSION JOINT INSERT SHOULD BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS

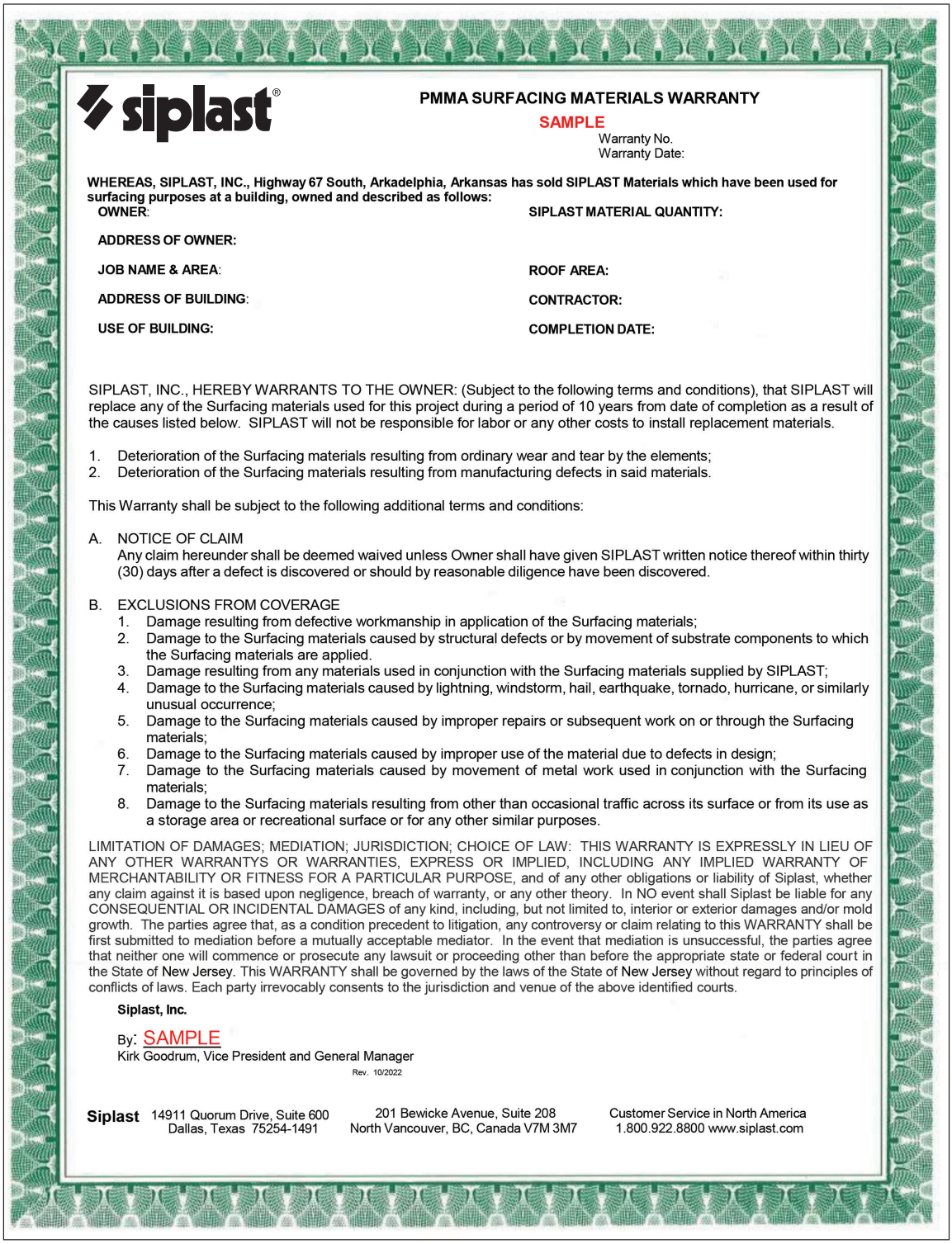
Mechanical Expansion Joint Insert – Horizontal to Vertical

Terapro 220/250 Surfacing System – Concrete Substrate



NOTES:
1. REFER TO SIPLAST PREPARATION GUIDELINES FOR PROPER SURFACE TREATMENT OF ALL MATERIALS PRIOR TO APPLICATION OF TERAPRO SURFACING MATERIALS.
2. THE EXPANSION JOINT INSERT SHOULD BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. REQUIREMENTS AND RECOMMENDATIONS DETAILED IN TERAPRO 220/250 SURFACING SYSTEM SPECIFICATIONS SHALL APPLY IN ADDITION TO THE ABOVE DRAWING.

Scale: NTS



siplast®

PMMA SURFACING MATERIALS WARRANTY

SAMPLE

Warranty No.
Warranty Date:

WHEREAS, SIPLAST, INC., Highway 67 South, Arkadelphia, Arkansas has sold SIPLAST Materials which have been used for surfacing purposes at a building, owned and described as follows:

OWNER:

SIPLAST MATERIAL QUANTITY:

ADDRESS OF OWNER:

JOB NAME & AREA:

ROOF AREA:

ADDRESS OF BUILDING:

CONTRACTOR:

USE OF BUILDING:

COMPLETION DATE:

SIPLAST, INC., HEREBY WARRANTS TO THE OWNER: (Subject to the following terms and conditions), that SIPLAST will replace any of the Surfacing materials used for this project during a period of 10 years from date of completion as a result of the causes listed below. SIPLAST will not be responsible for labor or any other costs to install replacement materials.

1. Deterioration of the Surfacing materials resulting from ordinary wear and tear by the elements;
2. Deterioration of the Surfacing materials resulting from manufacturing defects in said materials.

This Warranty shall be subject to the following additional terms and conditions:

A. NOTICE OF CLAIM
Any claim hereunder shall be deemed waived unless Owner shall have given SIPLAST written notice thereof within thirty (30) days after a defect is discovered or should by reasonable diligence have been discovered.

B. EXCLUSIONS FROM COVERAGE
1. Damage resulting from defective workmanship in application of the Surfacing materials;
2. Damage to the Surfacing materials caused by structural defects or by movement of substrate components to which the Surfacing materials are applied.
3. Damage resulting from any materials used in conjunction with the Surfacing materials supplied by SIPLAST;
4. Damage to the Surfacing materials caused by lightning, windstorm, hail, earthquake, tornado, hurricane, or similarly unusual occurrence;
5. Damage to the Surfacing materials caused by improper repairs or subsequent work on or through the Surfacing materials;
6. Damage to the Surfacing materials caused by improper use of the material due to defects in design;
7. Damage to the Surfacing materials caused by movement of metal work used in conjunction with the Surfacing materials;
8. Damage to the Surfacing materials resulting from other than occasional traffic across its surface or from its use as a storage area or recreational surface or for any other similar purposes.

LIMITATION OF DAMAGES; MEDIATION; JURISDICTION; CHOICE OF LAW: THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTYS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, and of any other obligations or liability of Siplast, whether any claim against it is based upon negligence, breach of warranty, or any other theory. In NO event shall Siplast be liable for any CONSEQUENTIAL OR INCIDENTAL DAMAGES of any kind, including, but not limited to, interior or exterior damages and/or mold growth. The parties agree that, as a condition precedent to litigation, any controversy or claim relating to this WARRANTY shall be first submitted to mediation before a mutually acceptable mediator. In the event that mediation is unsuccessful, the parties agree that neither one will commence or prosecute any lawsuit or proceeding other than before the appropriate state or federal court in the State of New Jersey. This WARRANTY shall be governed by the laws of the State of New Jersey without regard to principles of conflicts of laws. Each party irrevocably consents to the jurisdiction and venue of the above identified courts.

Siplast, Inc.

By: SAMPLE
Kirk Goodrum, Vice President and General Manager

Rev. 10/2022

Siplast 14911 Quorum Drive, Suite 600 Dallas, Texas 75254-1491 | 201 Bewicke Avenue, Suite 208 North Vancouver, BC, Canada V7M 3M7 | Customer Service in North America 1.800.922.8800 www.siplast.com

Terapro 220 Pedestrian Traffic Surfacing Systems and Unreinforced Terapro 250 Vehicular Traffic Surfacing Systems may be eligible for a 5-year PMMA Surfacing Material Limited Warranty. Reinforced Terapro 250 Traffic Surfacing Systems may be eligible for a 5-year or 10-year PMMA Surfacing Material Limited Warranty. Contact Siplast for more informaiton regarding limited warranty eligibility.

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469-995-2200
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604-929-7687

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siplast.com