



The Terapro VTS Waterproofing and Surfacing System for Vehicular Traffic Areas



Installer's Guide

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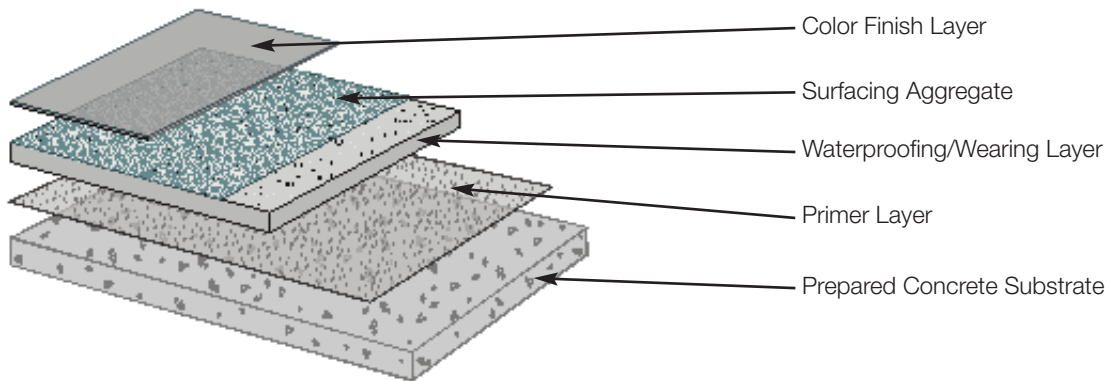
I. System Overview and Products

System Overview

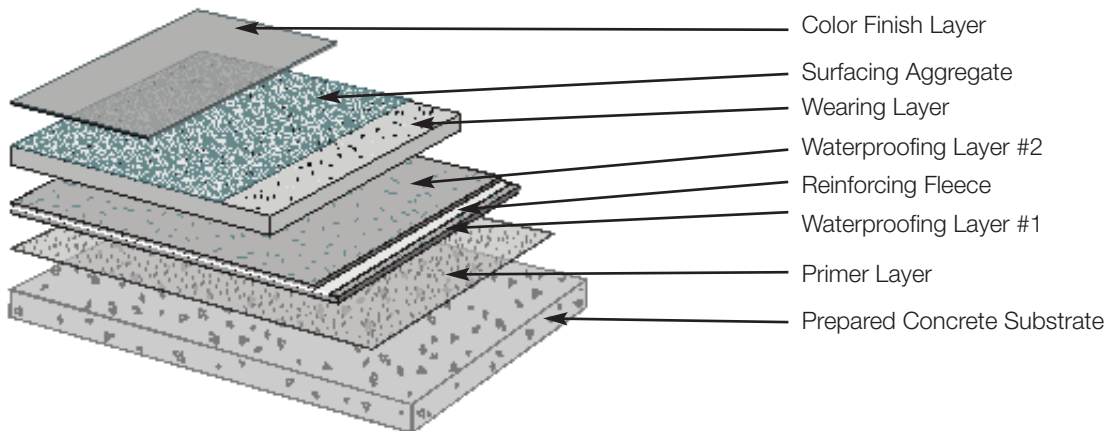
The Terapro VTS Waterproofing and Surfacing System is a liquid-applied, PMMA resin-based system designed to provide parking decks/garages with protection from vehicular traffic, weathering, water penetration, and environmental damage. Fast curing Terapro VTS is a tough, durable waterproofing and surfacing system engineered to meet the performance challenges of parking structures. Plus, the Terapro VTS System provides color choice options to create distinctive accents and markings for these normally nondescript areas.

The Terapro VTS Waterproofing and Surfacing system is a layered application consisting of one coat of primer, a thick resin/aggregate based waterproofing/wearing layer and a pigmented finish layer. For applications over occupied (interior) spaces, a reinforced layer is installed over a primed substrate prior to application of the wearing layer and the pigmented finish layer.

The Terapro VTS System - Unreinforced (for use over unoccupied spaces)



The Terapro VTS System - Reinforced (for use over occupied spaces)



Products

The following products are used in the Terapro VTS Waterproofing and Surfacing System:

Primers

Pro Primer T Resin (field)

Pro Primer W Resin (flashings)

Flashing Membrane

Terapro Flashing Resin

Waterproofing System Components

Terapro Base Resin (applications over occupied space)

Terapro VTS Resin

Terapro VTS Filler

Pro Fleece (applications over occupied space)

Surfacing Aggregate

Terapro VTS Quartz

Finishing Layer

Pro Color Finish Resin

Other

Pro Catalyst

Pro Paste

Pro Repair Mortar

Pro Prep

Weather Restrictions

Do not apply Terapro or Pro products if there is a threat of precipitation, condensation is present on the substrate or the ambient temperature is within 5°F of the dew point. Ambient and substrate temperatures affect the application of Siplast Terapro and Pro materials. Ambient and substrate temperature guidelines and restrictions vary by product, and are noted in the product sections of this guide.

Protection

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

II. Personal Protection

Safety and Protection

Refer to the Material Safety Data Sheet (MSDS) for each Terapro and Pro product for specific PPE information. Terapro and Pro Resins 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 around Terapro and Pro Resins. Keep the products away from open flame, fire, or any ignition source. Avoid breathing Terapro and Pro Resin vapors and Pro Catalyst dust.

Use the products with adequate ventilation or respiratory protection as needed to keep exposure below TLV values. 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 MSDS documents and product containers.

III. Storage

Storage

Store Terapros 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 approximately 6 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).

Pro Catalyst is extremely heat sensitive. Proper storage is important to help ensure handling safety 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 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. 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 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 grinders with carbide disk or other appropriate abrasive wheel
- Pro Prep
- Pro Paste
- Pro Primer
- Pro Repair Mortar

Mixing

- Plastic tarps or sheeting
- Variable speed drill with 1/2-inch chuck
- Industrial mortar mixer (double-auger type)
- Mixing agitator
- Mixing stir sticks
- 1-tablespoon measure
- Plastic mixing buckets (1, 5, and 10-gallon capacity)
- Battery operated scale with 40-lb (20-kg) capacity

Application

- Tape (masking and duct tape)
- Specialty tape (for color breaks)
- Margin trowel

- Application brushes
- Application rollers (18" and 9" low-lint roller for Pro Color Finish)
- Spiked/pin roller
- Flat trowel and cement finishing trowel
- Pro Stub Roller
- Pro Prep
- Heavy-duty scissors
- Disposable heavy duty butyl rubber or nitrile gloves

Miscellaneous

- Extension cords
- Clean cotton rags
- Plastic garbage bags
- Box or razor knife
- Infrared thermometer
- Tape measure
- Chalk line
- Protective booties

V. Substrate Requirements, Preparation, and Repair

General Substrate Preparation

All substrates must be free from irregularities, loose material, laitance, unsound material, foreign material (such as dirt, ice, snow, water, grease, oil, release/curing agents, lacquers, paint and other coatings), or any other condition that would be detrimental to the adhesion of the catalyzed primer and/or resin to the substrate. Concrete surfaces require shotblasting or scarification followed by shotblasting to achieve the suitable surface profile. Grinding can be considered for localized areas inaccessible to shotblasting equipment provided the desired suitable surface profile can be generated.

Substrate preparation guidelines appear in the chart on this page. However, 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 field bond test.

It is the responsibility of the Terapro Contractor to accept only slab conditions and surfaces meeting industry standards and Siplast requirements. Core analysis is strongly recommended to ensure that a concrete substrate is suitable to receive a Terapro VTS System. Upon request, Siplast will assist in determining substrate appropriateness by conducting adhesion tests. These tests are for guidance purposes only. Ultimately, it is the responsibility of the designer/contractor to determine if the substrate meets published criteria for installation.

Field and Flashing Membrane

| Substrate | Preparatory Guidelines | Pro Primer W Required | Pro Primer T Required |
|-----------------------|------------------------|-----------------------|-----------------------|
| Concrete (horizontal) | 1,5 | | ● |
| Concrete (vertical) | 1,5 | ● | |
| Polymer Concrete | 1,8 | ● | |

Flashing Membrane

| Substrate | Preparatory Guidelines | Pro Primer W Required |
|---|------------------------|-----------------------|
| Aluminum/Steel/ Stainless Steel/Copper/Lead | 1, 2, 3, 4 | |
| Concrete (vertical) | 1,5 | ● |
| Polymer Concrete | 1,7 | ● |
| Clay or Ceramic Tiles/Brick | 1,6 | ● |
| Mortar | 1,5 | ● |
| Paint/Coating | 6 | |

Key to Preparatory Guidelines:

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, lacquers, paint coverings, 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.
4. Wipe down thoroughly with Pro Prep prior to coating. Allow Pro Prep 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.
5. Prepare horizontal cement-based substrates by shot blasting or scarifying followed by shot blasting to ensure that laitance or foreign materials and the surface layer are completely removed. Prepare cement or masonry flashing substrates by shot blasting or grinding. New cement-based substrates must be at least 28 days old, properly cured, and meet Siplast moisture content guidelines.
6. All paint coverings and coatings must be removed. Remove glaze and grind to minimum CSP-2 profile.
7. Refer to polymer concrete 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.

Concrete and Masonry

Concrete Substrate Requirements

General

The concrete substrate must have a minimum compressive strength of 3500 psi (25 N/mm²), provide for bottom-side venting, and have a maximum moisture content as indicated in the section titled Moisture Content Guidelines below.

Polymer-modified concrete products are acceptable provided that they have been tested/approved in advance by Siplast. Contact Siplast Technical Support for a list of products that have been tested and approved.

Concrete substrates that do not meet Siplast standard guidelines to receive a Siplast primer are listed below. Contact Siplast Technical Support for qualification options.

- Split-slabs with a between-slab vapor impermeable membrane.
- Slab-on-grade construction.
- Concrete placed over a metal pan (including vented metal).
- Concrete utilizing porous aggregate such as light-weight structural concrete (LWSC) or aggregate containing hydrocarbons (trap rock).
- Concrete with a moisture content exceeding published maximums.
- Concrete that has been treated with curing/waterproofing agents or concrete contaminated by hydrocarbons, organic compounds such as bitumen (asphalt) or coal tar, alkaline silica reaction (ASR), or unreacted silicates.
- Concrete "T"-type constructions without an overlay of reinforced concrete topping.
- Pre-cast concrete panels.

New Concrete Pours

The mix design for new concrete pours should be submitted to Siplast for review prior to placement. New concrete must be allowed to cure for a minimum of 28 days in accordance with American Concrete Institute (ACI) Bulletin 308 – Guide to Curing Concrete, in addition to being below the maximum moisture content. 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.

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 an epoxy-based moisture mitigation system should be considered when the moisture content is expected to be above the published maximum at the time of waterproofing application.

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. Testing procedures should 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, concrete affected by alkaline silica reaction (ASR) or unreacted silicates. The lab should recommend the remedial work required to bring the concrete substrate into a condition suitable to receive the Terapro system. Reviewing the performance of an existing coating, roofing or waterproofing system is also recommended when evaluating a concrete substrate. If blistering or loss of adhesion of the existing coating/waterproofing is evident, the source of the problem should be investigated and addressed with a plan of action before the existing system is removed.

Moisture Content Guidelines – Concrete Substrates

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

Moisture levels can be measured using several standard methods:

ASTM D 2216 "Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock" is a physical measurement of the moisture before and after drying and is the most accurate of the tests available. This test requires cores to be removed from the concrete and the cores are then evaluated by a qualified laboratory. The obvious downside of this

test is its destructive nature.

ASTM F 1869 "Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride" is a non-destructive method and measures moisture movement through a concrete slab over the course of three (3) days. Prior to performing the test, the concrete surface is cleaned (ground) to remove any coatings or contaminants that may be present and to open the surface. A dish of anhydrous calcium chloride is then placed over the prepared surface for the specified period of time. The dish is then weighed before and after placement to measure moisture release from the concrete. This test method is primarily an indicator of surface moisture levels and is commonly used by the flooring/waterproofing industry. Calcium chloride testing must be performed under specific ambient conditions to yield accurate results.

ASTM F 2170 "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 over a 72-hour 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 the ASTM F 1869 test. New test methods have also been developed for measuring relative humidity over a period of time shorter than the 72 hours as required by ASTM F 2170. Relative humidity testing must be performed under specific ambient conditions to yield accurate results.

Relative humidity and calcium chloride testing require specific ambient conditions for the testing period. This may preclude performing moisture testing under hot, cold or wet weather conditions.

Following are Siplast guidelines for maximum moisture content based upon testing in accordance with the above-listed protocol.

| ASTM Method | Maximum Limit |
|-------------|--|
| ASTM D 2216 | 6% moisture content by weight |
| ASTM F 1869 | 3 lb of moisture release per 1000 ft ² of surface area per 24-hour period |
| ASTM F 2170 | 75% relative humidity |

Siplast does not perform moisture content evaluations. The above tests are offered by most independent labs that provide

services to design firms that utilize concrete in construction. The choice of test method and final acceptance of the concrete substrate is the responsibility of the design authority and/or waterproofing contractor.

Adhesion Testing for Concrete Substrates

Adhesion testing is an excellent indicator of the presence of carbonated concrete or unforeseen contaminants such as sealers, oils and 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 required for all concrete surfaces to be considered as a substrate for a Terapuro VTS System.

Adhesion to concrete is evaluated using a device conforming to ASTM D 4541 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 minimum 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 waterproofing contractor to verify the accuracy, adequacy, and appropriateness of the results.

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 testing 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 for reinforced systems and CSP 4 to CSP 6 for unreinforced systems. Preparation methods for concrete substrates include shotblasting or scarification followed by shotblasting. Multiple passes with scarification and shotblasting 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 this method can prove difficult. **Concrete preparation should be immediately** 6

followed by application of the appropriate primer. Prolonged exposure of the prepared concrete surface to the elements, traffic, or similar conditions may result in contamination, which can adversely affect Pro Primer adhesion.

Concrete Cracks and Joint Treatments

Before application of the Terapro VTS System, cracks and joints should be prepared and treated in accordance with Siplast details. Siplast recommendations for crack and joint preparation/treatment are intended to provide methods on a best effort basis to construct a watertight waterproofing system. Differential movement at cracks and between divided areas can affect the aesthetics of Terapro VTS 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 used for waterproofing 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 Repair Mortar may be used for areas requiring a greater thickness. See page 11 for additional information.

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. The Siplast guarantee excludes moisture entry through walls above the termination of the Terapro Flashing System from coverage .

Metal & Rigid Plastic

Lightly abrade and clean metal and rigid plastic substrates. Extend the preparation area a minimum of 1/4 inch (7 mm) beyond the termination of the Terapro flashing materials.

VI. Measuring and Mixing Terapro Resins

General Guidelines

Resins used in Terapro VTS Waterproofing and Surfacing Systems are fast setting and should only be catalyzed as needed. Depending upon the resin type and ambient temperatures, the amount of catalyst needed will vary.

Mixing Terapro and Pro Resins

Thoroughly mix the entire drum of uncatalyzed Terapro or Pro Resin for 2-3 minutes prior to pouring off into a second container when batch mixing. This will redistribute liquids/solids that may have separated during storage. Terapro VTS Resin is combined with Terapro VTS Filler to create a wearing layer or waterproofing/wearing layer mixture. Terapro VTS Filler is added to Terapro VTS Resin and the mixture is then catalyzed with Pro Catalyst. Catalyze only the amount of resin/filler combination that can be used within the anticipated pot life. Add Pro Catalyst Powder to the resin/filler combination. Stir for 2 minutes using a slow-speed mechanical agitator (a mixing stick can be used for small batches) 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 Terapro or Pro Resin. Resins have different volumes for the same measure of weight. A portable, battery-operated scale is the most accurate means for field measuring resins and Pro Catalyst. When a scale is not available, the approximate liquid measure on the following chart may be used for field measurement of Terapro and Pro Resins.

| Resin Type | Density | Liquid Measure per kg |
|------------------------|--------------|-----------------------|
| Pro Primer W Resin | 1.0 kg/liter | 1.0 kg/liter |
| Pro Primer T Resin | 1.0 kg/liter | 1.0 kg/liter |
| Pro Paste Resin | 1.4 kg/liter | 0.72 kg/liter |
| Terapro Flashing Resin | 1.4 kg/liter | 0.72 kg/liter |
| Terapro Membrane Resin | 1.4 kg/liter | 0.72 kg/liter |
| Terapro VTS Resin | 1.0 kg/liter | 1.0 kg/liter |
| Pro Color Finish | 1.0 kg/liter | 1.0 kg/liter |

Following is the mixing ratio for Terapro VTS and VTS Filler:

Terapro VTS Resin – one 10-kg can

Terapro VTS Filler – one pre-measured 22-kg bag

(2.2 kg of Terapro VTS Filler per 1 kg of resin for partial quantity batches)

The Tablespoon Method

If a portable, battery-operated scale is not available, a level 1-tablespoon measure using a standard culinary-type measuring spoon equals approximately 10 grams or 0.01 kilograms of catalyst powder. The following table can be used for calculating catalyst quantities per kg of resin.

| Catalyst Tablespoon Measurements (per kg resin) | |
|---|-----------------------------|
| % Catalyst | Tablespoons per kg of resin |
| 2% | 2 |
| 4% | 4 |
| 6% | 6 |

Pro Catalyst Mixing Ratios & Measurements

The amount of Pro Catalyst added to Terapro and Pro Resins is based on the weight (or associated volume) of the resin used, and varies with the ambient temperature and type of Terapro or Pro Resin. Pro Catalyst is available in 0.1 kg (100 g) pre-measured bags to simplify the catalyzing and mixing of Terapro resins. Whenever possible, pre-measured bags of Pro Catalyst should be used for mixing. See charts on pages 9 and 10 for mixing ratios. The amount of Pro Catalyst added to Terapro and Pro Resins must never be less than 2%. If resin mixed with the minimum required catalyst of 2% does not offer sufficient pot life, the resin temperature may be too high. Note that the ratios for VTS are based upon the resin weight only and do not include VTS Filler.

All resins must be fully cured within 2 hours of installation. If the resin is not cured within 2 hours, the product has not been mixed properly, has been misapplied, or both, and must be removed in its entirety. The area should then be prepared and new product applied.

VII. Pro Catalyst Charts

| Pro Primer W Resin and Pro Primer T Resin | | | | | | | | | | | | |
|---|--|-----|-------|-------------|--|-----|-------|-------------|---|-----|-------|-------------|
| The amount of Pro Catalyst used with Pro Primer W Resin and Pro Primer T Resin varies from a minimum of 2% to 6% maximum by weight, depending upon the ambient temperature as indicated in the following table: | | | | | | | | | | | | |
| Resin Quantity | 2% Catalyst Ambient Temperature 77°F to 95° (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 | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 1.0 kg (1.0 liter) | 20 | .02 | 2 | n/a | 40 | .04 | 4 | n/a | 60 | .06 | 6 | n/a |
| 5.0 kg (5.0 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 | 300 | 0.3 | 30 | 3 |
| 10.0 kg (10.0 liter) | 200 | 0.2 | 20 | 2 | 400 | 0.4 | 40 | 4 | 600 | 0.6 | 60 | 6 |

| Pro Paste Resin | | | | | | | | | | | | |
|---|---|-----|-------|-------------|--|-----|-------|-------------|---|-----|-------|-------------|
| The amount of Pro Catalyst used with Pro Paste Resin varies from a minimum of 2% to 6% maximum by weight, depending upon the ambient temperature as indicated in the following table: | | | | | | | | | | | | |
| 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 | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 1.0 kg (0.72 liter) | 20 | .02 | 2 | n/a | 40 | .04 | 4 | n/a | 60 | .06 | 6 | n/a |
| 5.0 kg (3.6 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 | 300 | 0.3 | 30 | 3 |

| Summer Grade Terapro Flashing Resin | | | | | | | | |
|---|--|-----|-------|-------------|--|-----|-------|-------------|
| The amount of Pro Catalyst used with Summer Grade Terapro Flashing Resin varies from a minimum of 2% to 4% maximum by weight, depending upon the ambient temperature as indicated in the following table: | | | | | | | | |
| Resin Quantity | Summer Grade 2% Catalyst Ambient Temperature 68°F to 95°F (20°C to 35°C) | | | | Summer Grade 4% Catalyst Ambient Temperature 59°F to 68°F (15°C to 20°C) | | | |
| | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 1.0 kg (0.72 liter) | 20 | .02 | 2 | n/a | 40 | .04 | 4 | n/a |
| 5.0 kg (3.6 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 |
| 10.0 kg (7.2 liter) | 200 | 0.2 | 20 | 2 | 400 | 0.4 | 40 | 4 |

| Winter Grade Terapro Flashing Resin | | | | | | | | |
|---|--|-----|-------|-------------|--|-----|-------|-------------|
| The amount of Pro Catalyst used with Winter Grade Terapro Flashing Resin varies from a minimum of 2% to 4% maximum by weight, depending upon the ambient temperature as indicated in the following table: | | | | | | | | |
| Resin Quantity | Winter Grade 2% Catalyst Ambient Temperature 59°F to 68°F (15°C to 20°C) | | | | Winter Grade 4% Catalyst Ambient Temperature 23°F to 68°F (-5°C to 15°C) | | | |
| | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 1.0 kg (0.72 liter) | 20 | .02 | 2 | n/a | 40 | .04 | 4 | n/a |
| 5.0 kg (3.6 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 |
| 10.0 kg (7.2 liter) | 200 | 0.2 | 20 | 2 | 400 | 0.4 | 40 | 4 |

| Summer Grade Terapro Base Resin | | | | | | | | |
|---|--|-----|-------|-------------|--|-----|-------|-------------|
| The amount of Pro Catalyst used with Summer Grade Terapro Base Resin varies from a minimum of 2% to 4% maximum by weight, depending upon the ambient temperature as indicated in the following table: | | | | | | | | |
| Resin Quantity | Summer Grade 2% Catalyst Ambient Temperature 68°F to 95°F (20°C to 35°C) | | | | Summer Grade 4% Catalyst Ambient Temperature 59°F to 68°F (15°C to 20°C) | | | |
| | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 1.0 kg (0.72 liter) | 20 | .02 | 2 | n/a | 40 | .04 | 4 | n/a |
| 5.0 kg (3.6 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 |
| 10.0 kg (7.2 liter) | 200 | 0.2 | 20 | 2 | 400 | 0.4 | 40 | 4 |

Winter Grade Terapro Base Resin

The amount of Pro Catalyst used with Winter Grade Terapro Base Resin varies from a minimum of 2% to 4% maximum by weight, depending upon the ambient temperature as indicated in the following table:

| Resin Quantity | Winter Grade 2% Catalyst Ambient Temperature 59°F to 68°F (15°C to 20°C) | | | | Winter Grade 4% Catalyst Ambient Temperature 23°F to 59°F (-5°C to 15°C) | | | |
|---------------------|--|-----|-------|-------------|--|-----|-------|-------------|
| | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 1.0 kg (0.72 liter) | 20 | .02 | 2 | n/a | 40 | .04 | 4 | n/a |
| 5.0 kg (3.6 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 |
| 10.0 kg (7.2 liter) | 200 | 0.2 | 20 | 2 | 400 | 0.4 | 40 | 4 |

Terapro VTS Resin

The amount of Pro Catalyst used with Terapro VTS Resin varies from a minimum of 2% to 6% maximum by weight, depending upon the ambient temperature as indicated in the following table:

| 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 | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 5.0 kg (5.0 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 | 300 | 0.3 | 30 | 3 |
| 10.0 kg (10.0 liter) | 200 | 0.2 | 20 | 2 | 400 | 0.4 | 40 | 4 | 600 | 0.6 | 60 | 6 |

Pro Color Finish Resin

The amount of Pro Catalyst used with Pro Color Finish Resin varies from a minimum of 2% to 6% maximum by weight, depending upon the ambient temperature as indicated in the following table:

| Resin Quantity | 2% Catalyst Ambient Temperature 59°F to 95°F (15°C to 35°C) | | | | 4% Catalyst Ambient Temperature 41°F to 59°F (5°C to 15°C) | | | | 6% Catalyst Ambient Temperature 32°F to 41°F (0°C to 5°C) | | | |
|----------------------|---|-----|-------|-------------|--|-----|-------|-------------|---|-----|-------|-------------|
| | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags | g | kg | Tbsp. | 0.1-kg Bags |
| 1.0 kg (1.0 liter) | 20 | .02 | 2 | n/a | 40 | .04 | 4 | n/a | 60 | .06 | 6 | n/a |
| 5.0 kg (5.0 liter) | 100 | 0.1 | 10 | 1 | 200 | 0.2 | 20 | 2 | 300 | 0.3 | 30 | 3 |
| 10.0 kg (10.0 liter) | 200 | 0.2 | 20 | 2 | 400 | 0.4 | 40 | 4 | 600 | 0.6 | 60 | 6 |

VIII. Pro Primer W and Pro Primer T Resins

Pro Primer W and Pro Primer T

General Application Guidelines

Priming with catalyzed Pro Primer T Resin is required prior to application of reinforced and unreinforced Terapro VTS Waterproofing and Surfacing Systems where horizontal areas of concrete are to be treated. Priming with catalyzed Pro Primer W is required prior to application of Terapro Waterproofing and Surfacing Systems where areas of vertical concrete, wood, plywood, cement boards, and other substrates listed in the substrate preparation chart on page 4 of this guide are to be treated. For specific priming requirements, refer to the substrate preparation chart on page 4 of this guide.

Pro Primer W and Pro Primer T may be applied when the ambient and substrate temperatures are between 32°F (0°C) and 95°F (35°C), provided the substrate is clean and dry. In warm temperatures, the substrate should be shaded for a sufficient period of time both prior to and during application, as necessary, to maintain the substrate at a temperature below 95°F (85°C).

Pro Primer W and Pro Primer T are applied with a roller and can be covered with Terapro Base or Flashing Resin after the primer is set (cured), generally a minimum of 45 minutes following application. Pro Primers 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. Pro Prep 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.

Pro Primer W and Pro Primer T Pot Life

The pot life of Pro Primer W and Pro Primer T 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.

Pro Primer W and Pro Primer T

Coverage Rate

Minimum consumption: 0.037 kg/sf (0.4 kg/m²) Porous or rough substrates may require a heavier application.

Pro Primer W and Pro Primer T Set Times

Minimum 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 set (cure) times should be established in the field, based on actual field conditions.

Rain Proof at 68°F (20°C): 25 minutes

Ready for Next Coat at 68°F (20°C): 45 minutes

IX. Pro Paste Resin and Pro Repair Mortar

Pro Paste and Pro Repair Mortar Resin

Pro Paste Resin is used for remediation of depressions in substrate surfaces or other irregularities prior to application of the Terapro VTS System.

Pro Repair Mortar consists of separate resin and aggregate components that are mixed to create a concrete patching product. Pro Repair Mortar can be used for patching concrete. Pro Repair Mortar has a compressive strength similar to that of structural concrete.

Pro Paste and Pro Repair Mortar

Application Guidelines

Pro Paste Resin and Pro Repair Mortar may be applied when

the ambient temperature is between 32°F (0°C) and 95°F (35°C). The resin or aggregate/resin mixture itself should be within storage temperature guidelines at the time of catalyzation to ensure that the product maintains a workable pot life. At the point of application, the substrate temperature should be between 32°F (0°C) and 122°F (50°C). Discontinue product application when the ambient temperature exceeds 95°F (35°C) and/or the substrate temperature exceeds the 122°F (50°C) maximum. Provide adequate shade over the substrate area both prior to and during application as necessary to maintain surface temperatures below the maximum.

Pro Paste Resin and Pro Repair Mortar, as with all Terapro and Pro resin products, may require the application of a Pro Primer

product before application. See the table on page 4 for specific substrate preparation guidelines.

When Pro Paste or Pro Repair Mortar are to be applied over a Pro or Terapro product, thoroughly clean the surface of the in-place resin product with Pro Prep. This step is required even if the Pro or Terapro product has been recently applied. Pro Prep should be allowed a minimum of 20 minutes of drying time after application before continuing. Following the Pro Prep drying time, the Pro Paste or Pro Repair Mortar application process should be completed within 1 hour.

Due to its porosity, catalyzed Pro Repair Mortar should not be exposed to precipitation or allowed to be exposed overnight. If Pro Repair Mortar will not be overlaid with Terapro Flashing or Base Resin immediately following application, seal the surface using Pro Primer W or Pro Primer T at a minimum rate of 0.037 kg/sf - 3.7 kg/sq (0.4 kg/m²).

Pro Paste and Pro Repair Mortar are applied with a trowel and can be covered with Pro Primer, the Terapro Flashing System, or the Terapro Waterproofing System after the Pro Paste or Pro Repair Mortar is set.

Pro Paste and Pro Repair Mortar

Coverage Rates

Pro Paste Thickness and Coverage Rates

Typical Coverage: 0.13 kg/sf per 1 mm of thickness (1.4 kg/m² per 1 mm layer of thickness)

Maximum Thickness (per lift): 3/16 inch (5 mm)

Pro Repair Mortar Thickness

Minimum Thickness: 3/16 inch (5 mm)

Maximum Thickness (per lift): 2 inches (50 mm)

A total thickness greater than 2 inches (50 mm) can be achieved by applying Pro Repair Mortar in layers (lifts) after the previous layer has cured.

X. Pro Fleece

Pro Fleece

Pro Fleece is the reinforcement layer used in Terapro VTS Waterproofing Systems over occupied (interior) spaces and over plywood substrates. Pro Fleece is also the reinforcement layer for Terapro flashing applications.

Pro Paste and Pro Repair Mortar Pot Life

The pot life of Pro Paste and Pro Repair Mortar is approximately 15 minutes when the catalyzed liquid or liquid/aggregate mixture is at 68°F (20°C). 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 is at the low range of minimum storage temperature during/following catalyzation and prior to application.

Pro Paste and Pro Repair Mortar 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/cure times should be established in the field, based upon actual field conditions.

Pro Paste Resin

Rain Proof at 68°F (20°C): 30 minutes

Ready for Next Coat at 68°F (20°C): 1 hour

Pro Repair Mortar

Rain Proof at 68°F (20°C): 30 minutes

Ready for Next Coat at 68°F (20°C): 45 minutes

Stress Resistant at 68°F (20°C): 1 hour

Pro Fleece Sizes

Pro Fleece is available in three widths: 41-inch (1050 mm) for use in the Terapro VTS Waterproofing System, and 12-inch (315 mm) and 25-inch (630 mm) for use in Terapro flashing applications.

XI. Terapro Flashing Resin

Terapro Flashing Resin -

General Application Guidelines

Terapro Flashing Resin, when catalyzed, is combined with fleece fabric 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.

Summer Grade Terapro Flashing Resin may be applied when the ambient temperature is between 59°F (15°C) and 104°F (40°C) and the substrate temperature is between 59°F (15°C) and 122°F (50°C). The temperature of the resin itself should be within storage temperature guidelines at the time of catalyzation to ensure that the product maintains a workable pot life. In warm temperatures, the substrate should be shaded for a sufficient period of time both prior to and during application, as necessary, to maintain the substrate at temperatures below 122°F (50°C).

Winter Grade Terapro Flashing Resin may be applied when the ambient temperature is between 23°F (-5°C) and 68°F (20°C). The resin itself should be within storage temperature guidelines at the time of catalyzation to ensure that the product maintains a workable pot life. The substrate temperature should be between 23°F (-5°C) and 77°F (25°C).

All flashing/penetration applications installed in conjunction with the Terapro Waterproofing and Surfacing System must be completed prior to the field waterproofing membrane application.

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

applied immediately following embedment of the 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. Pro Prep 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.

Terapro Flashing Resin Pot Life

The pot life of Terapro Flashing Resin 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.

Terapro Flashing Resin Coverage Rate

Minimum Total Consumption:

0.31 kg/sf (3.3 kg/m²).

Base Coat Minimum Consumption:

0.19 kg/sf (2.0 kg/m²)

Top Coat Minimum Consumption:

0.12 kg/sf (1.3 kg/m²)

Pro Color Finish Minimum Consumption:

0.046 kg/sf (0.5 kg/m²)

Terapro Flashing Resin Set Times

Minimum 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 set (cure) times should be established in the field, based on actual field conditions.

Rain Proof at 68°F (20°C): 30 minutes

Ready for Next Coat at 68°F (20°C): 45 minutes

Stress Resistant at 68°F (20°C): 2 hours

XII. Terapro Base Flashing Application



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) at a minimum rate of 0.037 kg/sf - 3.7 kg/sq (0.4 kg/m²). Allow to cure for 45 minutes.



Over the primed substrate, apply a base coat of catalyzed Terapro Flashing Resin at a minimum rate of 0.19 kg/sf - 18.6 kg/sq (2.0 g/m²) 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.



Apply an even top coat of Terapro Flashing Resin immediately following embedment of the fleece at a minimum rate of 0.12 kg/sf - 12.1 kg/sq (1.3 kg/m²) to ensure full saturation of the fleece. Remove tape before the resin sets.

XIII. Terapro VTS Waterproofing System

General Application Guidelines

Terapro Base Resin, when catalyzed, forms the waterproofing layer in a reinforced Terapro VTS Waterproofing System. Terapro VTS, when catalyzed and blended with Terapro VTS Filler, serves as both the waterproofing and wearing layer in an unreinforced Terapro VTS Waterproofing System.

Terapro Base Resin is available in two formulations: Summer Grade and Winter Grade. Summer Grade Terapro Base Resin may be applied when the ambient temperature is between 59°F (15°C) and 95°F (35°C) and the substrate temperature is between 59°F (15°C) and 122°F (50°C). Winter Grade Terapro Base Resin may be applied when the ambient temperature is between 23°F (-5°C) and 68°F (20°C) and the substrate temperature is between 23°F (-5°C) and 77°F (25°C). Care should be taken to ensure that the correct formulation of Terapro Base Resin (Summer Grade or Winter Grade) is chosen for the application based upon the ambient temperature.

Terapro VTS Resin and Pro Color Finish are available in a single grade and may be applied when the ambient temperature is between 32°F (0°C) and 95°F (35°C). Terapro VTS Resin/Filler may be applied when the substrate temperature is between 32°F (0°C) and 122°F (50°C). Pro Color Finish may be applied when the substrate temperature is between 32°F (0°C) and 95°F (35°C).

For all grades of resin, 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 specific resin product to be used. This is especially critical for Pro Color. The use of an infrared thermometer is recommended for measuring substrate temperature.

Application Guidelines - Unreinforced Systems

After qualification/preparation and priming the prepared concrete substrate with the appropriate Pro Primer, the catalyzed Terapro VTS Resin/Filler waterproofing mixture is trowel applied or applied using a stub roller. An 18" wide pin/spiked roller is then rolled over the applied mixture. The spiked roller ensures even distribution of the mixture and reduces trowel or roller marks. Immediately after rolling the mixture, broadcast the VTS Quartz into the Terapro VTS Resin/Filler mixture before the mixture sets.

Allow the waterproofing layer of Terapro VTS Resin to cure for a minimum of 2 hours before application of the Pro Color Finish. Remove excess VTS Quartz prior to application of Pro Color Finish.

If work is interrupted for more than 12 hours, or the surface of the Terapro Base Resin layer becomes dirty or contaminated,

from exposure to the elements, thoroughly clean the area with Pro Prep. Pro Prep 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.

Application Guidelines - Reinforced Systems

After qualification/preparation and priming with the appropriate Pro Primer, an even, generous waterproofing layer of catalyzed Terapro Base Resin is applied to the substrate with a roller. Pro Fleece reinforcement is worked into the wet, catalyzed Terapro Base Resin waterproofing layer using a roller to fully embed the fleece in the resin and remove trapped air. At side and end laps, Pro Fleece must be overlapped a minimum of 2 inches. An additional coat of catalyzed Terapro Base Resin must be applied between all layers of overlapping fleece. An even, generous top coat of catalyzed Terapro Base Resin is applied immediately following embedment of the fleece to ensure full saturation of the fleece reinforcement. Allow the waterproofing layer of Terapro Base Resin to cure for a minimum of 45 minutes before application of the next layer of the Terapro VTS Resin/Filler mixture.

After the reinforced Terapro Base Resin has cured, the Terapro VTS Resin/Filler mixture is trowel-applied or applied using a stub roller. An 18" wide pin/spiked roller is then rolled over the applied mixture. The spiked roller ensures even distribution of the mixture and reduces trowel or roller marks. Immediately after rolling the mixture, broadcast VTS Quartz into the VTS Resin/Filler mixture before the mixture sets (cures).

Allow the waterproofing layer of Terapro VTS Resin to cure for a minimum of 2 hours before application of the next layer of resin. Remove excess VTS Quartz prior to application of the Pro Color Finish.

If work is interrupted for more than 12 hours, or the surface of the Terapro Base Resin layer becomes dirty or contaminated from exposure to the elements, thoroughly clean the area with Pro Prep. Pro Prep 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.

Application Guidelines – Pro Color Finish

Catalyzed Pro Color Finish Resin is applied over quartz surfacings to form a protective layer. Pro Color Finish is applied by roller and must not be applied until the Terapro VTS Resin/Filler mixture has been in place for approximately 2 hours, and is set.

Pot Life - Terapro Base Resin, Terapro VTS Resin, and Pro Color Finish

The pot life of the above products 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.

Coverage Rates - Terapro Base Resin, Terapro VTS Resin, Terapro VTS Filler, Terapro VTS Quartz, Pro Color Finish

For consumption rates, refer to the system illustrations on pages 16 and 17 of this guide.

Set Times - Terapro Base Resin, Terapro VTS Resin, and Pro Color Finish

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.

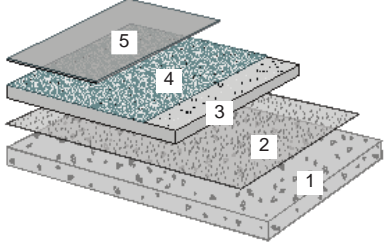
Rain Proof at 68°F (20°C): 30 minutes

Ready for Next Coat at 68°F (20°C): 45 minutes

(Two hours for VTS Resin/Filler Mixture)

Ready for Vehicular Traffic: 3 hours

XIV. Terapro Pro Quartz–VTS Unreinforced System for Use Over Unoccupied Space

| Terapro VTS Unreinforced System VTS Quartz Concrete Substrates | Layer | Minimum Consumption | | | |
|---|--|------------------------|-------------|------------|------------------------|
| | | sf/unit* | kg/sf | kg/sq | kg/m ² |
|  | 1. Substrate | | | | |
| | 2. Primer Layer - Pro Primer T | 135 sf (10 kg pail) | 0.037 kg/sf | 3.7 kg/sq | 0.4 kg/m ² |
| | 3. Waterproofing Layer Terapro VTS Resin & VTS Filler Mixture | 71 sf (batch) | 0.45 kg/sf | 45 kg/sq | 4.8 kg/m ² |
| | 4. Surfacing Aggregate - VTS Quartz | 50 sf (bag) | 0.465 kg/sf | 46.5 kg/sq | 5.0 kg/m ² |
| | 5. Finish Layer - Pro Color Finish | 144 sf (10 kg pail) | 0.070 kg/sf | 7.0 kg/sq | 0.75 kg/m ² |

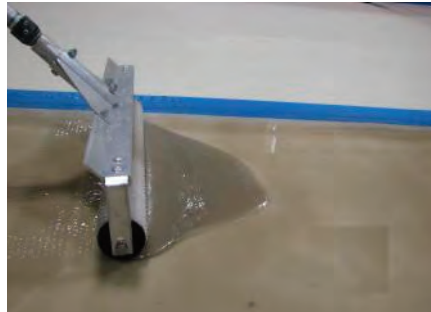
* Does not include waste, overage due to uneven substrates or product needed to treat cracks/joints and saturate roller covers. See the Terapro VTS Estimating Guide for more information.

Terapro VTS Unreinforced System Application – Unoccupied Space



Priming

Prime the prepared concrete substrate with Pro Primer T at a minimum rate of 0.037 kg/sf - 3.7 kg/sq (0.4 kg/m²). Allow to cure for 45 minutes.



Waterproofing / Wearing Layer

Apply Terapro VTS Resin/Filler mixture using a trowel or stub roller at a minimum rate of 0.45 kg/sf – 45 kg/sq (4.8 kg/m²). Follow up with a spiked roller over the entire surface.



Surfacing Application

Immediately embed a full covering of VTS Quartz into the Terapro VTS waterproofing layer at a minimum rate of 0.465 kg/sf - 46.5 kg/sq (5.0 kg/m²). Allow to cure for 2 hours.



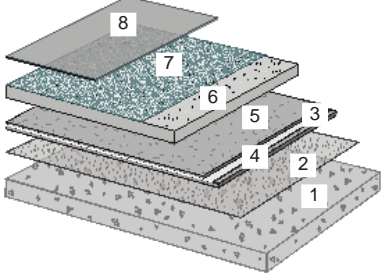
Color Coat

Sweep away loose excess VTS quartz. Install a layer of Pro Color Finish at a minimum rate of 0.07 kg/sf – 7 kg/sq (0.75 kg/m²).



The finished application is ready for vehicular traffic after 3 hours.

XV: Terapro VTS Reinforced System for Use Over Occupied Space

| Terapro VTS Reinforced System Pro Natural Quartz/Pro Color Finish Surfacing Concrete | Layer | Minimum Consumption | | | |
|---|--|------------------------|-------------|------------|------------------------|
| | | sf/unit* | kg/sf | kg/sq | kg/m ² |
|  | 1. Substrate | | | | |
| | 2. Pro Primer T | 135 sf (10 kg pail) | 0.037 kg/sf | 3.7 kg/sq | 0.4 kg/m ² |
| | 3. Waterproofing Layer #1 Terapro Base Resin | 36 sf (10 kg pail) | 0.19 kg/sf | 18.6 kg/sq | 2.0 kg/m ² |
| | 4. Reinforcing Fleece - Pro Fleece | | | | |
| | 5. Waterproofing Layer #2 Terapro Base Resin | | 0.09 kg/sf | 9.0 kg/sq | 1.0 kg/m ² |
| | 6. Wearing Layer - Terapro VTS Resin and VTS Filler Mixture | 71 sf (batch) | 0.45 kg/sf | 45.0 kg/sq | 4.8 kg/m ² |
| | 7. Surfacing Aggregate - VTS Quartz | 50 sf (bag) | 0.465 kg/sf | 46.5 kg/sq | 5.0 kg/m ² |
| | 8. Finish Layer - Pro Color Finish | 144 sf (10 kg pail) | 0.070 kg/sf | 7.0 kg/sq | 0.75 kg/m ² |

* Does not include waste, overage due to uneven substrates or product needed to treat cracks/joints and saturate roller covers. See the Terapro VTS Estimating Guide for more information.

Terapro VTS Reinforced System Application – Occupied Space



Priming

Over the prepared substrate, apply Pro Primer T at a minimum rate of 0.037 kg/sf - 3.7 kg/sq (0.4 kg/m²). Pro Primer T is ready for application of the waterproofing layer in 45 minutes.



Waterproofing Layer #1

Apply a base layer of Terapro Base Resin using a roller at a minimum rate of 0.19 kg/sf - 18.6 kg/sq (2.0 kg/m²).



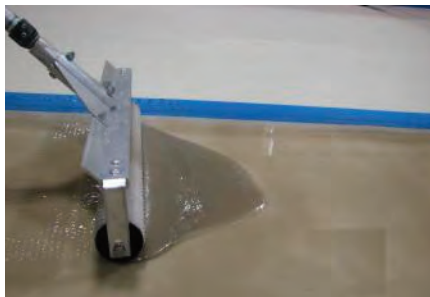
Fleece Application

Install a layer of Pro Fleece into the wet Terapro Base Resin, and use a roller to embed the fleece in the resin and to remove trapped air. Utilize a minimum 2-inch overlap between overlapping sheets of fleece. An additional coat of Terapro Base Resin must be placed between all layers of overlapping fleece.



Waterproofing Layer #2

With a roller, apply a top coat of Terapro Base Resin at a minimum rate of 0.09 kg/sf - 9.0 kg/sq (1.0 kg/m²) immediately following embedment of fleece to ensure full saturation of the fleece reinforcement. Allow to cure for 45 minutes.



Waterproofing/Wearing Layer

Apply Terapro VTS Resin/Filler mixture using a trowel or stub roller at a minimum rate of 0.45 kg/sf - 45 kg/sq (4.8 kg/m²). Follow-up with a spiked roller over the entire surface.



Surfacing Application

Immediately embed a full covering of VTS Quartz into the Terapro VTS waterproofing layer at a minimum rate of 0.465 kg/sf - 46.5 kg/sq (5.0 kg/m²). Allow to cure for 2 hours.



Color Finish

Remove excess quartz. Install a layer of Pro Color Finish at a minimum rate of 0.070 kg/sf - 7.0 kg/sq (0.75 kg/m²).



The finished application is ready for vehicular traffic after 3 hours.



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