



**THERMO-SEAL® 1000 MAINTENANCE COATING FOR CONCRETE,
CEMENTATIOUS and CLAY ROOF TILES**
(Application process is always to be determined based on condition of existing tiles.
If in doubt, contact The Ultimate Coatings Company or. *Warranty available only
through application by Approved Applicators.)

**For old or new roof tiles with bare, porous substrate surfaces or chalky, minor
adhering remnants of the original, colored slurry coating.**

COVERAGE and COATING STEPS TO BE PERFORMED:

Clear Masonry Sealer 990 (required) is applied over cleaned tiles initially as primer and will cover 250-300 sq ft per gallon depending upon porosity. Specification coverage for THERMO-SEAL 1000 over clear sealed tiles will be 200 to 250 square feet per gallon, depending upon heat of roof and ambient temperature.

WARRANTY: 10 Years*

Warranty requires two full coats of THERMO-SEAL 1000 over tiles sealed with Clear Masonry Sealer 990 with complete drying of each coat before re-coating. Two or more photographs must be taken at each stage of the roof maintenance coating: (Initial, power-washing, clear sealing, THERMO-SEAL coating including edges, and after Final coat.)

NUMBER OF COATS:

A minimum of two THERMO-SEAL coats must be applied in order for warranty requirements to be met and for longer-term durability. **NOTE: Product must not be applied in one heavy coat, as performance deficiencies may occur.**

EQUIPMENT:

Standard Airless sprayers with a minimum pressure of 2500 psi using spray tips with a maximum fan diameter of 12" at a distance from the tiles of one foot are ideal (tip sizes 6-21 to 6-25). Tip diameter producing 10" spray fan (5-21, 5-23 up to 5-25) are also acceptable and are more controllable. Please note that the smaller diameter tips will take more time to apply material because less material is applied. Care must be taken to ensure that the coating is not piled up onto the tile surfaces and that excessive material does not sag down. Should this occur, sprayer pressure must be lowered.

THINNING:

The coating may be thinned with clear, clean water. This can be done at a maximum of 1 quart per 5 gallons of coating. Should sprayer not be moving coating sufficiently for efficient application, use a larger diameter spray tip before adding water.

Never over-thin the THERMO-SEAL product.

PREPARATION:

First, wet down roof tiles from bottom perimeter edge up to top peak. Next, spray a mildew removing solution ~ 3 to 1 ratio diluted sodium hypochlorite (bleach) to cool water, Jomax or other comparable rinseable mildewcide onto all visible tile surfaces and into seams by applying by sprayer and allowed to sit for 15 to 20 minutes to kill mildew roots and unseen mold attachments. Keep surfaces dampened without allowing mildewcide solution to dry. After this time, power-wash carefully moving bottom to top in order to keep away from walking on water-soaked, slippery tiles.

If tiles need to be replaced, or sub roof, flashings and/or valleys need repair or replacement, this needs to be done prior to the sealing of tiles.

If cracks, or voids are present, these cracks must be caulked and/or grouted as standard practices for such repairs and the tile replacements made prior to the sealing of tiles.

TILE SURFACE PRIMING:

A 2-day minimum dry time after power washing is advised when roof is in direct sun and/or 70 degrees Fahrenheit or higher will be sufficient in low humidity. If humidity level is high, regardless of temperature, wait a minimum of 3 full days prior to spraying of Clear Masonry Sealer 990 onto cleaned tiles.

Manufacturer's suggested minimum drying time is 2 hours for the Clear Masonry Sealer 990 prior to coating with THERMO-SEAL 1000 heat-reflective, maintenance paint and 2 hours for each coat of THERMO-SEAL 1000. Failure to wait until sealer or paint has dried properly will result in the failure of THERMO-SEAL finish coats. Always be aware of weather, humidity, rain or fog, which could slow drying and/or ruin paint finish.

With standard airless sprayer with 515 or 615 spray gun tip:

Apply Clear Masonry Sealer 990 in a steady parallel pattern with 3" overlaps running from the lowest perimeter edge of the whole tile roof on upwards to the roof peak then recommencing again from the lowest perimeter edge. Care should be taken to ensure full coverage of the lowest edge of each tile and into open seams between tiles.

NOTE: Do not thin Clear Masonry Sealer for any reason.

FINISH COATING APPLICATION:

Apply THERMO-SEAL by airless sprayer in a steady, parallel pattern at slower speed with 3" overlaps running from the lowest perimeter edge of the whole tile roof on upwards to the roof peak then recommencing again from the lowest perimeter edge. Care should be taken to ensure full coverage of the lowest edge of each tile. Two coats must be done with full drying between coats. Remember: Re-coat time is 2 hours at 70 F. degrees.

BACK-ROLLING and BACK-BRUSHING:

Back-rolling sprayed vertical tile surfaces is only needed if too much paint has been applied and sagging has occurred. This must be done within 5 minutes in hot weather or paint may have set up and no longer lay off smoothly. In the event that too much product is applied and is sagging, it is recommended that a 1/2" nap roller should be used to "lay off" material by spreading paint onto other uncoated tiles. Back-brushing or laying off THERMO-SEAL with a paintbrush of 3" inch diameter on edges can assist sprayed paint in filling in the minor holes in the surface texture of tiles which have these rough edges, however mini roller with 3/4" nap can also be utilized.

RE-COAT TIME: FACTORS

Standard dry time to re-coat for both Clear Masonry Sealer and THERMO-SEAL is 2 hrs. If surface temperature is lower than air temperature or there is high humidity, dry time for re-coat will be longer. Surface should not be sticky to the touch or in any way soft prior to re-coat. If more than 2 hours has passed and this is still the case, you must wait until the coated surfaces are fully dried. High humidity will substantially retard the dry time. Failure to use good painting judgment and allow complete drying of THERMO-SEAL may result in coating failure and/or bonding problems. Application in colder temperatures will slow drying times and require at least overnight drying in temperatures at 50 F. degrees. It is not recommended product is applied in temperatures below 60 F. degrees.

MINIMUM FILM THICKNESS:

A minimum film thickness of 6-8 wet mils per coat of THERMO-SEAL 1000 must be achieved. A millage gauge tool should be used on the wet surfaces as a test for verification if applicator is unsure of coverage. The mil gauge should be used to ensure applicator's knowledge of material and that the correct millage is achieved. By use of good painting practices with these guidelines, paint should be applied at a rate of 200-225 sq ft per gallon minimum to achieve this millage, depending upon heat and humidity.

FAILED PRIOR COATINGS:

Failed prior coatings must be removed by power-washing particularly if it is an old "slurry" or paint. If old paint, it is recommended that any acrylic paint prior used to repaint this type of roofing is removed in full prior to application of THERMO-SEAL maintenance system.

TEST to see if old paint on tile surface is sound after power washing: Take a sharp box cutter or utility knife and make an "X" into the old painted surface to be tested at six inches length. Apply pieces of DUCT TAPE in a one-foot length over the X and tamp down with a foot. Pull briskly away. If paint adheres substantially and pulls away with the tape, then it all must be removed prior to sealing or priming. If applied over such a finish, finish coatings will fail, due to either old finish softening or loss of bond strength after new material overcoats it. Bonded slurry or old factory color finishes typically will improve with use of our CLEARNT MASONRY SEALER but test should be done if any question as to type of original coating is present after power-washing is done.

SEALED TILES: Newer factory sealed or gloss glazed/painted tiles must be primed in full with Bonding Primer 390 or equivalent like Insul-X "STIX" prior to application of

THERMO-SEAL. Primer must be allowed to dry fully. Depending upon hardness of factory painted surface, this may be as long as 48 hours. Caution must be used and bond should be confirmed with duct tape application and pull tested as above. **Primed or sealed tile surfaces must be power-washed clean if not finish coated within 14 days of primer or sealer application to remove surface dust, etc. If highly dusty or polluted area, primed tiles may require cleaning again even sooner. Use good painting judgement.**

WARNINGS

SUBSTRATE MATERIALS:

Do not apply any Product from The Ultimate Coatings Company over cedar wood shake, Cal-Shake brand or any Cemwood type wood/cement, or synthetic roof shingles.

Do not apply over failed finishes.

Do not apply finish directly over chalked painted surfaces. Chalky paint must be scrubbed and power-washed prior to sealing.

Do not use any alkyd primer over concrete tile surfaces. Saponification problems (soaping) may occur over time.

WEATHER CONDITIONS:

Do not apply coatings during temperatures above 90 F. degrees ambient temperature.

Do not apply paint onto tile surfaces over 120 F. degrees, or below 50 F. degrees. Use a handheld indirect thermometer gauge/gun to check temperature if in doubt.

Do not apply coatings when temperatures of 50 degrees or less are expected by evening or within 4 hours of expected temperature drop below 50 degrees.

Do not apply coatings in overhead direct sun or where overhead direct sun is expected within 1 hour to heat roof above 120 degrees.

Do not apply coatings when rain or fog conditions are expected within 4 hours.

Do not apply over sealers, primer, caulk or other repair materials not fully dried or cured.

Do not apply if surface is wet or has salt residue from salt-water fog.

Do not apply if heavy saltwater fog conditions or drizzle have occurred without rinsing THERMO-SEAL painted surfaces between first and second coats. Use same procedure between THERMO-SEAL second coat.

**QUESTIONS? ~ PHONE directly The Ultimate Coatings Company: 415-726-0551
EMERGENCY: Chemtrec 1-800-424-9300.**

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