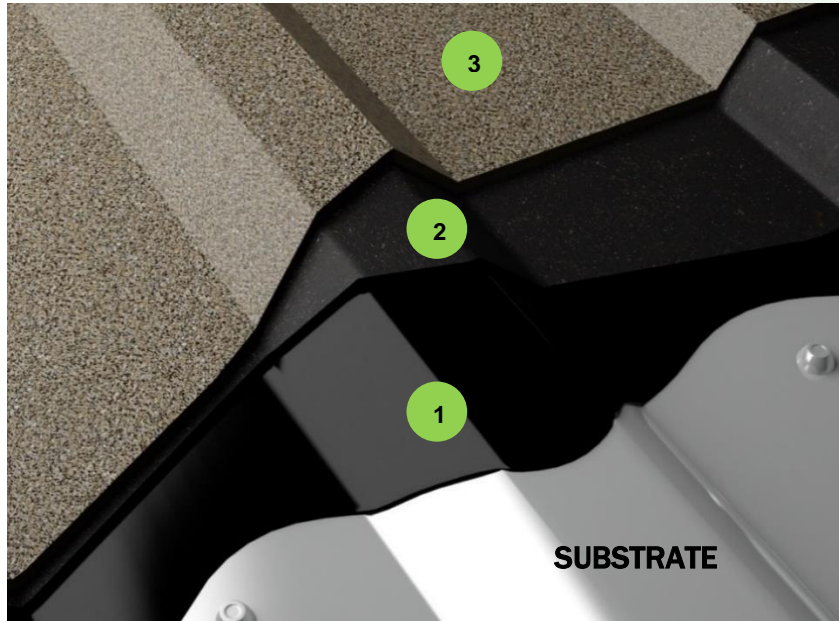


THERMOTЕК™ SELF-ADHESIVE SYSTEM MODIFIED BITUMEN MEMBRANE OVER METAL

SELF-ADHESIVE MEMBRANE OVER METAL SURFACE AP-SA/BS-SA/CS



1. ASPHALT PRIMER
2. THERMOTЕК™ SELF ADHESIVE FIBERGLASS 1.5 BASE SHEET
3. THERMOTЕК™ SELF ADHESIVE POLYESTER GRANULATED

COMPONENTS AND WEIGHTS

| | Coat | Product | Coverage (100 sq. ft.) | Dry Weight Lb | | Dry Mils | | | |
|-------------------|--------------------------------------|-------------------------------------|---------------------------|-------------------------|-----------------------|---------------------------|-----------------------|---------------------|------------------------|
| | | | | 3.0 mm | 3.5 mm | 3.0 mm | 3.5 mm | | |
| SYSTEM | 1 | ASPHALT PRIMER | 1 gal | 3.23 LBS/SQ | | 6.2 Mils | | | |
| | 2 | THERMOTЕК™ SELF ADHESIVE FG 1.5 BS | 180 sq ft | 40.5 LBS/SQ | | 59.05 Mils | | | |
| | 3 | THERMOTЕК™ SELF ADHESIVE POL. GRAN. | 89 sq ft | 84.55 LBS/SQ | 98.64 LBS/SQ | 118.11 Mils | 137.79 Mils | | |
| | SYSTEM | | | 128.28 LBS/SQ | 142.37 LBS/SQ | 183.36 Mils | 203.04 Mils | | |
| CRITICAL POINTS | THERMOTЕК™ DURA MASTIC | | Variable | Variable | | Variable | | | |
| | THERMOTЕК™ SELF ADHESIVE POL. 2.0 BS | | Variable | Variable | | Variable | | | |
| COMPLEMENTS | THERMOTЕК™ WASH | | 0.2 gal | Variable | | Variable | | | |
| OPTIONAL TITLE 24 | 1 | THERMOTЕК™ COATING | 1 gal | SILVER + 6.24 LBS/SQ | GOLD + 7.25 LBS/SQ | PLATINUM + 7.67 LBS/SQ | SILVER + 6.86 Mils | GOLD + 8.06 Mils | PLATINUM + 8.2 Mils |
| | 2 | THERMOTЕК™ COATING | 1 gal | 6.24 LBS/SQ | 7.25 LBS/SQ | 7.67 LBS/SQ | 6.86 Mils | 8.06 Mils | 8.2 Mils |
| | ADD TO SYSTEM | | | + 12.48 LBS/SQ | + 14.5 LBS/SQ | + 15.34 LBS/SQ | +13.72 Mils | +16.12 Mils | +16.4 Mils |
| | | | | | | | | | |

*Approximate measures

PART 1 – GENERAL

1.1. SUMMARY

This document provides the specifications for the application of our product to roofing surface. These specifications should be used only as a general guide, with the addition of specific details as different job conditions.

These tools include roofing products, coverage rate, installation procedures with THERMOTЕК™ Roofing Products and complementary products. Final determination of the fitness of the application of any THERMOTЕК™ Roofing Products shall not be made by anyone other than an authorized representative of THERMOTЕК™ Roofing Products.

1.2 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only:

- A. American Society for Testing and Materials Publication (ASTM).
- B. Underwriters Laboratories Inc. (UL).
- C. CRRC – Cool Roof Rating Council.
- D. California Building Standards Code - Title 24.
- E. THERMOTЕК™ Details, Drawings and Notes

1.3 QUALITY CONTROL

- A. Warranty: THERMOTЕК™ GROUP guarantees that since our products are shipped from the production plant they will be free of manufacturing defects and defective materials. Liability, if any, is limited to product replacement from the completion date of the work.
- B. The manufacturer: shall certify that submitted materials have been actively engaged in the manufacture industry for a minimum period of 10 years prior to submittals.
- C. Applicator Qualifications:
 - 1) Applicators shall have a minimum of 5 years experience in the application of roofing materials.
 - 2) The manufacturer shall certify that the contractor possesses a current “Qualified Applicator” Certificate and that is authorized for the application of their materials.
 - 3) The applicator shall have general knowledge and understanding of roofing, as well for all THERMOTЕК™ Roofing Products for any given specified project.
 - 4) For all warranties, a firm which has complete business stability shall perform the work in this section: present a copy of certification upon request by the Architect or the owner.
 - 5) The installer, owner or Architect must review all the documents related to all critical points and check list.
 - 6) For different roofing details and/or terms and conditions for warranty, the installer, owner or architect must contact a THERMOTЕК™ Technical Representative. All issues concerning the roof must be resolved in writing.

1.4 SUBMITTALS

In the normal course of bidding, descriptive literature, technical data, and wet or dry samples of all proposed materials for their use under these specifications, shall be submitted upon request.

1.5 JOB CONDITIONS

To proceed with proper conditions, the applicator must be aware of the following:

- A. UV curing time for all THERMOTЕК™ Roofing is critical. The applicator must allow sufficient cure time for each product. Please be aware that outside temperatures will be a factor.
- B. Do not begin work if rain or heavy dew is expected within twenty-four to forty-eight (24-48) hours after application.
- C. Do not begin work if temperatures are expected to fall below 50 °F and increase over 104 °F during the installation.
- D. Consider that other environmental conditions such as humidity, mist, dew, extreme temperatures and condensation, can affect THERMOTЕК™ Roofing Products in an inconsistent way.

1.6 PRODUCT STORAGE AND HANDLING

All the time, the THERMOTЕК™ Roofing Products should be stored at a temperature above 40 °F, in a warm, dry, clean and well-ventilated area.

1.7. PROTECTION OF PROPERTY

The contractor shall take proper precautions to protect owner's property against damage and overspray. The use of shield boards, maskings and protective coverings shall be necessary. THERMOTЕК™ is not responsible for damages caused by the overspray of any of its products.

PART 2 – PRODUCTS

COMPONENTS AND WEIGHTS

| | Coat | Product | Coverage (100 sq. ft.) | Dry Weight Lb | | Dry Mils | | | |
|-------------------|--------------------------------------|-------------------------------------|---------------------------|-------------------------|-----------------------|---------------------------|-----------------------|---------------------|------------------------|
| | | | | 3.0 mm | 3.5 mm | 3.0 mm | 3.5 mm | | |
| SYSTEM | 1 | ASPHALT PRIMER | 1 gal | 3.23 LBS/SQ | | 6.2 Mils | | | |
| | 2 | THERMOTEK™ SELF ADHESIVE FG 1.5 BS | 180 sq ft | 40.5 LBS/SQ | | 59.05 Mils | | | |
| | 3 | THERMOTEK™ SELF ADHESIVE POL. GRAN. | 89 sq ft | 84.55 LBS/SQ | 98.64 LBS/SQ | 118.11 Mils | 137.79 Mils | | |
| | SYSTEM | | | 128.28 LBS/SQ | 142.37 LBS/SQ | 183.36 Mils | 203.04 Mils | | |
| CRITICAL POINTS | THERMOTEK™ DURA MASTIC | | Variable | Variable | | Variable | | | |
| | THERMOTEK™ SELF ADHESIVE POL. 2.0 BS | | Variable | Variable | | Variable | | | |
| COMPLEMENTS | THERMOTEK™ WASH | | 0.2 gal | Variable | | Variable | | | |
| OPTIONAL TITLE 24 | 1 | THERMOTEK™ COATING | 1 gal | SILVER + 6.24 LBS/SQ | GOLD + 7.25 LBS/SQ | PLATINUM + 7.67 LBS/SQ | SILVER + 6.86 Mils | GOLD + 8.06 Mils | PLATINUM + 8.2 Mils |
| | 2 | THERMOTEK™ COATING | 1 gal | 6.24 LBS/SQ | 7.25 LBS/SQ | 7.67 LBS/SQ | 6.86 Mils | 8.06 Mils | 8.2 Mils |
| | ADD TO SYSTEM | | | + 12.48 LBS/SQ | + 14.5 LBS/SQ | + 15.34 LBS/SQ | +13.72 Mils | +16.12 Mils | +16.4 Mils |
| | | | | | | | | | |

*Approximate measures.

OPTIONAL – for a REFLECTIVE FINISH the applicator should add THERMOTEK COATING to the THERMOTEK™ SELF-ADHESIVE SYSTEM - MODIFIED BITUMEN MEMBRANE OVER METAL (TITLE 24 COMPLIANCE).

2.1 MATERIALS

A. SYSTEM

- THERMOTEK™ ASPHALT PRIMER.
- THERMOTEK™ SELF-ADHESIVE FIBERGLASS 1.5 BASE SHEET
- THERMOTEK™ SELF-ADHESIVE POLYESTER GRANULATED

B. CRITICAL POINTS

- THERMOTEK™ DURA MASTIC
- THERMOTEK™ SELF-ADHESIVE POLYESTER 2.0 BASE SHEET

C. COMPLEMENTS

- THERMOTEK™ WASH

D. OPTIONAL

- THERMOTEK™ ACRYLIC ELASTOMERIC COATING

2.2 PRELIMINARY DETAILED INSPECTION

Inspect the preliminary work area and flashing details for problem areas (e.g. gaps, cracks, fishmouths, air pockets, etc.) to ensure the work be satisfactorily completed. Inform Project architect and THERMOTEK™ Technical representative when all preliminary work and flashing details are completed, in order the installer gets ready to proceed with application of THERMOTEK™ SELF-ADHESIVE SYSTEM - MODIFIED BITUMEN MEMBRANE OVER METAL .Allow a minimum of two weeks for the interim inspection. Any final roofing installation prior to this interim inspection is subject to rejection by the Project Architect and/or the THERMOTEK™ Technical representative. Please be aware that technical on-site support for instructing certified contractors in the proper application of the THERMOTEK™ SELF-ADHESIVE SYSTEM - MODIFIED BITUMEN MEMBRANE OVER METAL is available.

2.3 PROCEDURE, COVERAGE RATE & APPLICATION INSTRUCTIONS

THERMOTEK™ SELF-ADHESIVE SYSTEM - MODIFIED BITUMEN MEMBRANE OVER METAL is approved for application over metal roofing sheets which have a good drainage.

- A. **SURFACE PREPARATION:** the surface must be clean, dry and free of dust, dirt, grease, wax, or other incompatible substances that may interrupt the proper adherence of the new fluid applied:
- 1) Remove all loose particles on the roof by sweeping or vacuum.
 - 2) For coating or repairing, the surface must be clean, dry and free of dust, dirt, grease, wax, or other incompatible substances; wash with THERMOTEK™ WASH and clean water using A power wash machine (1500 psi- 1 ft away).
 - 3) Areas of algae, mildew or fungus on the roof membrane or on the existing coating should be treated with a solution of 1 part household bleach and 3 parts water, followed with power washer rinse using clear water.
 - 4) Add additional fasteners to tighten laps where gaps exist. Gaps should not exceed ¼ inch in width.
 - 5) Stripped, loose or missing fasteners should be replaced with the next available larger diameter fastener size. Check all fasteners to ensure they are tight.
 - 6) Remove all rust by scraping, sandblasting or wirebrushing.
 - 7) The panels that are rusted or damaged should be replaced with new panels to match the existing ones.
 - 8) Remove all asphaltic-based patching and flashing materials with power washing, scraping or brushing. Do not apply solvents.
 - 9) Remove all silicone caulks and sealants. ACRYLIC ELASTOMERIC coatings, primers and flashing grade THERMOTEK™ Roofing products will not bond to silicone caulks, sealants and/or coatings.
 - 10) Remove and replace deteriorated pipe boots and other flexible flashing materials.
 - 11) All necessary repairs to the existing roof shall be made according to NRCA (National Roofing Contractors Association) guidelines.
- B. **SUBSTRATE CONDITIONS:** the roofing contractor is responsible to ensure that the substrate is acceptable for the THERMOTEK™ roof system:
- 1) THERMOTEK™ Technical representative must present to the owner a completed inspection form verifying the substrate condition and any noted defects not specifically addressed in regard to this installation.
 - 2) The surface shall be free from dirt, loose adhered granules, oil, debris and moisture, it shall be in stable condition. Any work on the area to receive this application shall be completed prior to installation.
 - 3) The applicator shall complete substrate inspection prior to start roof coating. The architect/owner and applicator shall accept the condition of the surface. Beginning the work constitutes an acceptance from the THERMOTEK™ Technical representative.
- C. **APPLICATION INSTRUCTIONS:**
- 1) **ASPHALT PRIMER APPLICATION:** cover all the surface with ASPHALT PRIMER. The coverage rate¹ of ASPHALT PRIMER (ASTM D 41) is 1 gallon per 100 square feet:
 - In with mild rust areas - apply an extra coat of ASPHALT PRIMER at a coverage rate of 1 gallon per 100 square feet.
 - In with deep rust areas - it is recommended to replace the metal sheet.
 - 2) **CRITICAL POINTS:** review all the critical points over the surface and repair them with THERMOTEK™ DURA MASTIC and THERMOTEK™ SELF-ADHESIVE POLYESTER 2.0 BASE SHEET.
 - 3) **THERMOTEK™ SELF-ADHESIVE FIBERGLASS 1.5 BASE SHEET** application, apply THERMOTEK™ SELF-ADHESIVE FIBERGLASS 1.5 BASE SHEET. The coverage rate for THERMOTEK™ SELF-ADHESIVE FIBERGLASS 1.5 BASE SHEET is a 1.80 SQ (theoretical coverage).
 - 4) **THERMOTEK™ SELF-ADHESIVE POLYESTER GRANULATED** application: apply THERMOTEK™ SELF-ADHESIVE POLYESTER GRANULATED. The coverage rate for THERMOTEK™ SELF-ADHESIVE POLYESTER GRANULATED is a 0.89 SQ (theoretical coverage).
 - 5) **THERMOTEK™ ACRYLIC ELASTOMERIC COATING APPLICATION:** apply THERMOTEK™ ACRYLIC ELASTOMERIC COATING all over the roof in a perpendicular way from the base coat – in the 'cross hatch'. The coverage rate for THERMOTEK™ ACRYLIC ELASTOMERIC COATING will be 2.0 gallons per 100 square feet.

¹COVERAGE RATE: the texture and porosity of the existing roof may affect the coverage rate.

- 6) Finally, the applicator shall repair and/or replace any defective work found at the end of the job, before any warranties will be issued.

Note: Drying time depends on weather conditions such as temperature, humidity and air movements. The above drying times assume good weather (70 ° F daytime temperature) and NO RAIN. Conditions of lower temperature and rain will require a longer period for drying. The coverages contained herein are theoretical and these may vary depending on the surface roughness and the weather at the time of application. Existing foam and/or insulation roofs with extensive delamination or blistering of the foam, APP and/or the coating system, major wet areas, saturated foam, etc., will require total removal and possible replacement as per local building codes. When situations are questionable, Thermotek™ Technical Representative shall be contacted for recommendations. In all cases of prospective re-coats or initial 1st coat applications should be verified as to moisture content by survey, i.e. infra-red, in conjunction with core cuts and moisture readings. If moisture is present, the roof must be vented completely before proceeding the coating application.

PART 3 – WARRANTY

3.1 WARRANTY

Please read our THERMOTEK™ PRODUCT LIMITED WARRANTY¹ to verify our available warranty periods.

NOTE: For additional warranty questions please contact THERMOTEK™ Technical and Warranty Services department.

PART 4 – CARE AND MAINTENANCE

4.1 CARE AND MAINTENANCE PROGRAM

In order to ensure that your THERMOTEK™ Roofing Products will continue performing to its fullest, you should follow, implement and satisfy this THERMOTEK™ Care and Maintenance Program².

- A. Maintain a file for all records relating to your roof, including the THERMOTEK™ Roofing Products agreements, reports, invoices, repair and maintenance bills, original drawings and specifications, etc.
- B. Inspect the roof and coating at least twice each year, preferably in spring and fall. The most common areas of damage or distress are drainage points, penetrations, perimeter flashings and traffic areas.
- C. Maintain a file for all records relating to your roof, including the THERMOTEK™ Roofing Products agreements, reports, invoices, repair and maintenance bills, original drawings and specifications, etc.
- D. Inspect the roof and coating at least twice each year, preferably in spring and fall. The most common areas of damage or distress are drainage points, penetrations, perimeter flashings and traffic areas.
- E. The surface should always be clean and white. Pressure wash the coating as needed (at least once time every 12 months) in order to remove all dirt and debris off the surface. Use THERMOTEK™ WASH and clean water with an appropriate pressure washing equipment (1500 psi – 1 ft away), *do not use anything but clean water* unless THERMOTEK™ Roofing Products (in such case, use only approved wash products).
- F. Inspect for damage after severe weather conditions, such as hailstorms, heavy rains, high winds, acts of God, etc.
- G. Arrange the prompt and necessary repairs to correct non-guaranteed conditions affecting the roof surface. Repairs to the surface must be promptly performed with THERMOTEK™ Roofing Products, approved contractors with approved products, and repair methods that are consistent with the type and quality of the warranted coating, in order that such repairs will last as long as the THERMOTEK™ Roofing Products.
- H. Remove regularly any debris, such as leaves, branches, dirt, rocks, bottles, rubbish... that may accumulate on the roof surface. Clean rain gutters, downspouts, scuppers, and surrounding roof areas ensure proper drainage.
- I. Examine all metal flashings, counter flashings, expansion joints and pitch pockets for repairing: rust, detachment, deteriorated sealant, and any damage. If it is necessary, reattach loose metalwork, replace sealant and paint rusted areas.

¹LIMITED WARRANTY - We as THERMOTEK GROUP guarantee that since our products are shipped from the production plant they will be free of manufacturing defects; all the recommendations contained herein follow tests we consider as reliable and are subject to change without prior notice. THERMOTEK GROUP does not assume any responsibility for coverage, performance on injuries resulting from storage, handling or use of our products. Liability, if any, is limited to product replacement, to the terms stated within the executed warranty.

²THERMOTEK™ CARE AND MAINTENANCE PROGRAM - is intended to address conditions commonly found on buildings (other conditions that require special maintenance considerations may exist). It is the responsibility of the building owner ensuring that the care and maintenance program used for his particular building is adequate, given that building's specific condition.

- J. Examine masonry walls and copings for cracks, bad mortar joints, deteriorated sealant, loose masonry/coping stones, and indications of bad water absorption. Repair all such conditions to prevent water filtration.
- K. Examine rooftop equipment such as air conditioners, ductwork, gooseneck vents, powered ventilators, evaporative coolers, antennas, equipment screens, skylights, satellite dishes, etc. For the excessive movement, spillage of coolant, condensation, oil, grease, water/liquid release, etc. Damage to sheet metal cabinets and rubber or fabric gaskets may allow water filtration. Employ, keep and maintain drainage systems for release of water from rooftop equipment to avoid surface water buildup. Keep all roof top equipment in good conditions.
- L. Inspect with frequency for any cracks, blistering, or flaking. Contact a THERMOTEK™ Roofing Products representative for repairing. Any such cracks, blistering or flaking must be recoat/patch with approved THERMOTEK™ Roofing products.
- M. Minimize rooftop traffic. Establish paths which confine roof traffic to designated areas only. Service personnel should take care to avoid dropping tools, equipment, parts, etc. on the roof surface; also they should not make any penetrations or repairs to the coating. All the work affecting the coating must be performed by an approved THERMOTEK™ Roofing Products contractor.

END OF SECTION