



Installation Guide

COVE BASE INSTALLATIONS

General Instructions for the Installation of a Sanitary Cove Base or Utility (or Chamfer) Cove for Use With Most Thermal-Chem Flooring Systems

SCOPE OF THIS GUIDE

Instruction guidelines for the application and installation of a Sanitary Cove Base or Utility Cove (also known as a Cant or Chamfer Cove) for most Thermal-Chem Flooring Systems. Integral monolithic cove bases are generally installed for the purpose of improving sanitation, cleanliness, wall surface protection, or waterproofing in potentially wet environments; such as kitchens, dish wash areas, laboratories, hospitals, or any where that these qualities may be required.

TYPICAL PRODUCT APPLICATION

A) SANITARY COVE BASE

This Installation Guide is provided specifically for a dimensional troweled application method for installing a sanitary Cove Base $\frac{1}{8}$ " to $\frac{3}{8}$ " thickness and 4" to 6" high. Refer to the "Monolithic Cove Base" detail drawing in the Thermal-Chem Product catalog.

- ▶ Prime at approximately 150 to 160 square feet per gallon
- ▶ Mix one gallon (A and B Components) with approximately 45 lbs. TC #4 Slurry Sand)

B) UTILITY COVE (ALSO KNOWN AS A CANT OR CHAMFER COVE)

Installation of a Utility or Chamfer Cove (typically $45^{\circ} - \frac{3}{4}$ " x $\frac{3}{4}$ " up to 3" wide x 6" high). Refer to Cove Base detail drawing No. 6 in the Thermal-Chem Product catalog.

- ▶ Application of a primer (neat resin) at approximately 150 to 160 square feet per gallon, and a trowelable epoxy matrix, when blended with selected aggregate, placed at specified thickness and base height - 1 gallon of mixed resin with approximately 60 to 75 lbs. of TC Silica #5 trowel aggregate, TC Silica # 4 slurry aggregate or quartz aggregate depending on floor system and cove base selected.

Note: The Cove Base should always be installed prior to the installation of the polymer floor system. Almost any of the Thermal-Chem base coat systems can be used to build a Cove Base. However, due to the differing performance characteristics of the various systems, Thermal-Chem should always be consulted directly for specific product recommendations and/or installation suggestions.

PRECAUTIONS and LIMITATIONS

All coverage rates are theoretical and no guarantee of results is possible due to project variability including conditions of substrate, application temperatures, and installation techniques.

- 1) A Cove Base can be installed against (or over) most properly supported and/or solid backed wall surfaces including - wall board, plaster, ceramic tile, RFP board, concrete block or any CMU surfaces. (Consult with Thermal-Chem for additional recommendations.) Regardless of the wall surface or material, the wall should be prepared and aggressively abraded in order to improve adhesion to the surface.
- 2) No solvents of any kind can be used for placement, thinning, or mixing with this product; nor should any solvent be used as a trowel lube. Solvents will adversely effect the integrity of this product.
- 3) The base coat product used for installing the cove base, may require the application of one of the optional top coats for best performance.
- 4) To achieve optimum adhesion, the minimum substrate temperature should be above the prescribed minimum temperature for the product being used for the cove base. Always consult the *Installation Guide* for the base coat material being used, or consult Thermal-Chem directly.
- 5) Trowel mixes must be applied over a prime coat while the primer is still wet or tacky; and, unless authorized otherwise, the prime coat should always be the same neat resin material as the base coat resin being applied.
- 6) The flowability or viscosity of the base coat material can be effected by substrate and/or material temperatures at time of installation. The epoxy components can be heated in advance of the application to aid in improving flowability.
- 7) Caution should be taken when applying a floor system base coat over a substrate that may subject to hydrostatic pressure or vapor transmissions. When in doubt, a moisture test should always be taken to determine suitability.

APPLICATION PROCEDURES

A) SANITARY COVE BASE INSTALLATION METHOD

- 1) Floor Surface Preparation - To insure proper system adhesion, concrete surfaces can be prepped by shot blasting, scarifying, or diamond grinding.
- 2) Wall Surface Preparation - regardless of the type of wall material, prep can be accomplished by abrading the surface with a hand grinder (or similar tool) equipped with 60 or 80 grit sand paper (or equal).
- 3) A surface primer is necessary using this method of application. However, applications over extremely porous substrates may increase consumption rates and/or may require an additional primer fill coat in order to achieve a suitable backing for the cove base installation.
- 4) After the substrate has been thoroughly prepared and cleaned, mix the appropriate base coat material for a neat prime coat (always refer to the *Installation Guide* for the product being used). Remember that the flowability of the mixed resin will be affected by the substrate temperature and/or the temperature of the material at the time of application.

Note: To help maintain the correct height of the cove base, and to achieve the specified thickness; a metal "L" or terrazzo strip can be installed against the wall surface at the appropriate height around the perimeter of the room being done. Refer to the Cove Base Detail Drawing No. 5 in the Thermal-Chem Product catalog.

- 5) Once mixed, apply the resin to the surface with a brush or by means of a small roller. On extremely porous substrates such as concrete block, try to work the neat resin material into the pores aggressively. A gallon of neat material over typical absorptive concrete or wallboard should cover approximately 120 to 160 square feet per gallon. (The substrate surface texture, porosity, and the temperature of materials and/or the substrate will affect spread rates.)
- 6) After the primer has been applied and allowed to cure for several minutes (to get tacky), lightly broadcast aggregate (typically TC Silica #6 or equal, or any locally obtained aggregate) sparsely into the primed surface. Broadcasting a light sprinkle of aggregate into the primer will help reduce any surface tension and will create "teeth" for the trowelable cove base mix to bite into and prevent the mix from slipping or sliding across the surface as it is being troweled.
- 7) Once the surface has been primed; mix the appropriate resin Base Coat components and the appropriate aggregate together (refer to the *Installation Guide* for the base coat product being used) for approximately 2 minute in a clean mixing vessel. Be sure to mix liquid components in a large enough container so that the proper amount of aggregate can be added. A typical mix will be approximately a 7.5:1 (sand to resin) mix ratio by weight. Slowly blend the aggregate into the pre-blended liquid and mix thoroughly until the aggregate is adequately wetted out. The mix ratio is correct when the mix can be troweled up the side of the mixing container 6 to 8 inches and will hold its shape. Never mix more cove base material than can be applied, tooled or finished in a 15 to 20 minutes span, depending on base coat material used and temperatures.

Note: Depending on size of mix, mixing can be done in a clean five gallon bucket or a cut down 20 gallon drum. In all cases, however, it is important to blend the aggregate into the container holding the liquid components rather than adding the liquid to the aggregates.
- 8) Once resins and aggregates are thoroughly blended, material can be placed on the vertical surface substrate using a standard trowel or a margin trowel. After material has been placed and spread; the mix should be tooled or shaped and compacted using a cove base trowel that has the same shape as the specified Cove Base (thickness/height/radius/etc.). The placed material should be troweled adequately so that the surface is smooth and even, trowel marks have been eliminated or removed, and the surface is closed sufficiently so that the optional finish coat can be applied uniformly.
- 9) After the Cove Base has cured sufficiently, usually overnight, a surface grinder or hand sanding machine can be used for further smoothing of the surface and to knock off any burrs or high spots.
- 10) Finish Coat: After the installation of the Cove Base has reached initial cure, the base coat Floor System can be installed. If a top coat is required, the Cove Base can be left until the floor system is complete and coated at the same time. Refer to the appropriate top coat *Installation Guide* for proper mixing instructions; including options of available textures and colors.

B) UTILITY (CANT OR CHAMFER) COVE INSTALLATION

- 1) Floor Surface Preparation - To insure proper system adhesion, concrete surfaces can be prepped by shot blasting, scarifying, or diamond grinding.
- 2) Wall Surface Preparation - regardless of the type of wall material, prep can be accomplished by abrading the surface with a hand grinder (or similar tool) equipped with 60 or 80 grit sand paper (or equal).

- 3) A surface primer is necessary using this method of application. However, applications over extremely porous substrates may increase consumption rates and/or may require an additional prime or fill coat in order to achieve a suitable backing for the cove base installation.
- 4) After the substrate has been thoroughly prepared and cleaned, mix the appropriate base coat material for a neat prime coat (always refer to the Installation Guide for the product being used). Remember that the flowability of the mixed resin will be affected by the substrate temperature and/or the temperature of the material at the time of application.

Note: To help maintain the correct height of the cove base, a double thickness of duct tape can be installed against the wall surface at the appropriate height around the perimeter of the room being done. Refer to the Cove Base Detail Drawing No. 6 in the Thermal-Chem Product catalog.

- 5) Once mixed, apply the resin to the surface with a brush. On extremely porous substrates such as concrete block, try to work the neat resin material into the pores aggressively. A gallon of neat material should cover approximately 120 to 160 square feet per gallon (on the substrate surface texture, porosity, and the temperature of materials and/or the substrate will affect spread rates).
- 6) Once the surface has been primed; mix the appropriate Base Coat components and the appropriate aggregate together (refer to the Installation Guide for the base coat product being used) for approximately 2 minutes in a clean mixing vessel. Be sure to mix liquid components in a large enough container so that the proper amount of aggregate can be added. A typical mix will be approximately a 7:1 to 7.5:1 (sand to resin) mix ratio by weight. Slowly blend the aggregate into the pre-blended liquid and mix thoroughly until the aggregate is adequately wetted out. The mix ratio is correct when the mix can be troweled up the side of the mixing container 6 to 8 inches and will hold its shape.

Note: Depending on size of mix, mixing can be done in a clean five gallon bucket or a cut down 20 gallon drum. In all cases, however, it is important to blend the aggregate into the container holding the liquid components rather than adding the liquid to the aggregates.

- 7) Once resins and aggregates are thoroughly blended, material can be placed on the substrate using a standard trowel or margin trowel, depending on dimensions and size of utility cove being installed. The placed material should be troweled sufficiently so that the surface is smooth and even, trowel marks have been eliminated or removed, and the surface is closed and compacted sufficiently so that the optional finish coat can be applied uniformly.
- 8) After the Cove Base has cured sufficiently, usually overnight, a surface grinder or hand sanding machine can be used for further smoothing of the surface and to knock off any burrs or high spots.
- 9) Finish Coat: After the installation of the Cove Base has reached initial cure, the base coat Floor System can be installed. If a top coat is required, the Cove Base can be left until the floor system is complete and coated at the same time as the floor system. Refer to the appropriate top coat Installation Guide for proper mixing instructions; including options of available textures and colors.

PRECAUTIONS and NOTES

- Always refer to individual product data sheets for proper product recommendations and for the specific performance characteristics of each product.
- Wear goggles (eye protection), non-absorbent gloves, and protective clothing when handling any of the chemicals referred to in the *Installation Guide(s)*. Always read and refer to the supplier's or manufacturer's instructions, warning labels, and MSDS sheets carefully prior to using any of these

products.

- In case of contact with the skin, by any products provided by Thermal-Chem Corporation, immediately remove the material with soap and water; and follow all written instructions on the appropriate MSDS sheets for exposure of the material to the body and any medical emergency procedures.
- Work areas should be adequately ventilated, especially in low and confined spaces.
- Any or all of the preparation chemicals referred to in this guide, may be classified as hazardous waste and should be handled and disposed of within appropriate local, state or federal guidelines. It is the responsibility of the user of such materials to be aware of and comply with the appropriate regulations for discarding of any waste.
- Any and all Thermal-Chem materials and their containers must be disposed of properly, and is the responsibility of the purchaser. Follow all appropriate guidelines for disposing of such materials, or for suggested procedures contact Thermal-Chem directly.
- Refer any questions with regard to the content of this ***Installation Guide*** and/or questions about specific installation procedures directly to:

**Thermal-Chem Corporation
2120 Roberts Drive
Broadview, IL 60155**

**Phone: 800/635-3773
847/288-9090
Fax: 847/288-9091
E-Mail: Sales@thermalchem.com
Web Site: www.thermalchem.com**

- Complete technical information and services are available through Thermal-Chem Corporation at the above referenced numbers.