

ACCEPTED FLOORING MATERIALS IN A UCSB FOOD FACILITY

When installing a new floor or replacing an existing floor on UCSB property, contact the EH&S Environmental Health Program to assure the floor and base meet the current requirements.

The California Retail Food Code (CalCode) §114268 provides the following:

(a) Except in sales areas, dining areas, and serving areas, the floor surfaces in all areas in which food is prepared, prepackaged, or stored, where any utensil is washed, where refuse or garbage is stored, where janitorial facilities are located in all toilet and handwashing areas, except with respect to areas relating to guestroom accommodations and the private accommodations of owners and operators in restricted food service facilities, and in employee change and storage areas shall be smooth and of durable construction and nonabsorbent material that is easily cleanable.

(b) Floor surfaces shall be coved at the juncture of the floor and wall with a 3/8 inch minimum radius coving and shall extend up the wall at least 4 inches, except in areas where food is stored only in unopened bottles, cans, cartons, sacks, or other original shipping containers.

Floor materials used in retail food facilities must be of smooth and durable construction, of nonabsorbent materials, and easily cleanable. It must be provided in the following areas:

- Where food is prepared, packaged, or stored
- Where any utensil is washed
- Where refuse or garbage is stored
- Where janitorial facilities are located
- In all toilet and handwashing areas
- At unpackaged customer self-service food and beverage areas
- At wait stations
- In employee change and storage areas

Contact EH&S prior to ordering, purchase, or installation of new and replacement flooring.

NOTE: *Vinyl Tile* (VCT, VAT) Vinyl tile is **not** acceptable for floors in any area except customer dining or pre-packaged retail display. Concrete floors are not acceptable finishes in any area EXCEPT customer dining, pre-packaged retail display, pre-packaged grocery warehouse areas, inside walk-in or reach-in refrigeration units. **Rubber base or wood base cove are not approved.**

TYPES OF FLOORING

I. *Commercial Sheet Vinyl*

Vinyl floor proposals must be approved prior to installation. Submit a sample to EH&S for all flooring installations prior to ordering, purchasing or installing materials, including any alternative or "green" product proposals.

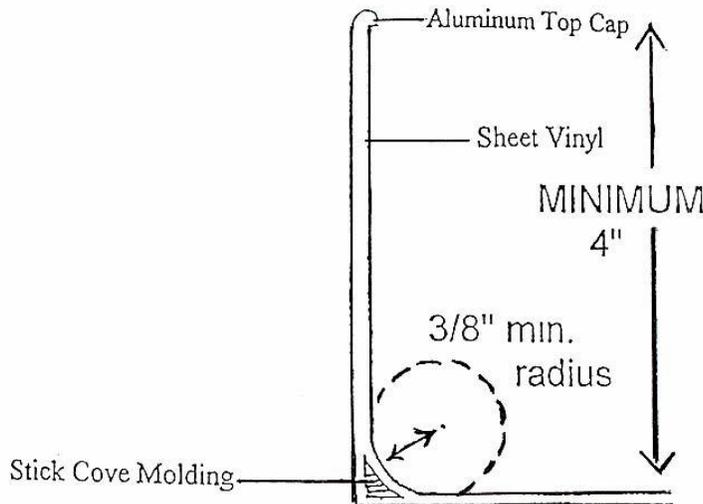
If sheet vinyl flooring is proposed, check the manufacturer's specifications and recommendations for installation areas. While sheet vinyl flooring may perform well in many food service areas (i.e., retail sales areas, dining rooms, waitress stations), some manufacturers do not recommend its use in portions of a commercial kitchen, i.e., cooking or WAREWASHING areas. If you have any questions regarding the accepted flooring manufacturer's recommendations, check with your flooring dealer, request a manufacturer specification sheet and material sample to submit to EH&S.

Standards:

- A. Vinyl composition throughout (no paper backing).
- B. No embossed imprint or wear layer.
- C. Minimum .080 inch wear layer thickness of vinyl material throughout.
- D. A "no wax" coating on surface is not acceptable.

Installation:

- A. Flooring shall continue up walls, partitions and cabinetry at least four (4) inches, forming an integral 3/8 inch minimum radius cove base. Most installers, however, cove the vinyl up to six inches high for ease of installation. The cove base must be backed with a cove molding and topped with a metal cap. **VINYL TOPSET OR RUBBER BASE COVE ARE NOT APPROVED.**
- B. Manufacturer's installation criteria and standards must be followed.
- C. All seams must be "heat welded" to form a continuous sheet vinyl surface of durable construction.
- D. Subfloor shall be sloped to at 1/4" to 1' to floor drains, if installed.
- E. Sheet vinyl flooring may not be installed in areas maintained below a temperature of 55 degree F. (i.e., walk-ins, reach-ins).



Sheet Vinyl Installation

Cross Section View at Cove Base

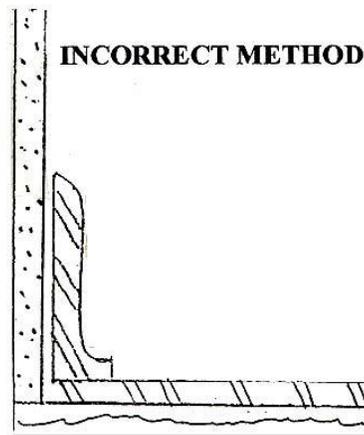
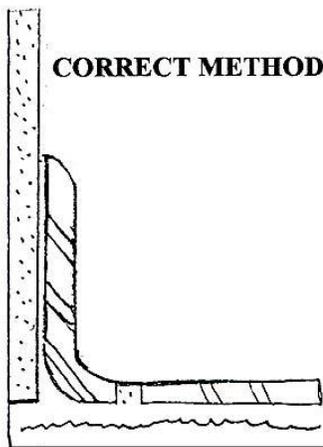
II. Quarry, Ceramic or Porcelain Tile

Standards:

- A. Minimum thickness ¼ inch and impact resistant.
- B. Non-skid varieties must be reviewed on an individual basis, and shall be installed with floor drains and a high-pressure cleaning system. This type of floor tile shall be limited to traffic areas. Tile installed under equipment must be smooth.

Installation:

- A. The grout spacing width between tiles shall not exceed ¼ inch.
- B. Grout between lines and quarry tile types without a glazed surface finish must be sealed to be impervious to water, grease and acid. Epoxy grout is the required standard for tile floor.
- C. Flooring shall continue up the walls, partitions, and stationary cabinetry at least four (4) inches, forming an integral, 3/8 inch minimum radius base cove. The tile shall be a “Bull Nose” design at the top where it meets the wall. A 90 degree angle at the base floor/wall juncture is NOT APPROVED.



Quarry/Ceramic Tile Floor and Cove Base Installation

III. Troweled Epoxy Type Floor

- A. Minimum finish thickness shall be 1/4 inch.
- B. The surface shall be sealed to be impervious to water, grease and acid.
- C. Flooring shall continue up the walls, partitions and cabinetry at least four (4) inches, forming an integral 3/8 inch minimum radius base cove.
- D. Non-skid flooring with an abrasive texture shall be limited to traffic areas only. Cove base and floor surface areas under equipment shall be smooth. Depending on the degree of abrasive finish texture achieved, a high-pressure cleaning system and floor drains may be required. A finish floor plan must be submitted for approval of exact installation areas. Provide material samples to verify degree of texture.

IV. Sealed Concrete

If concrete sealant is proposed, check the manufacturer's specifications and recommendations. Most sealants should be reapplied every six months. If you have any questions regarding the approved sealants, check with EH&S. A sealed concrete floor is **ONLY** approved inside customer dining, pre-packaged retail display, pre-packaged grocery warehouse areas, and inside walk-in or reach-in refrigeration units.

Standard:

- A. The finished surface shall be **SMOOTH** and **EASILY CLEANABLE** and sealed to be impervious to water, grease and acid.

Installation:

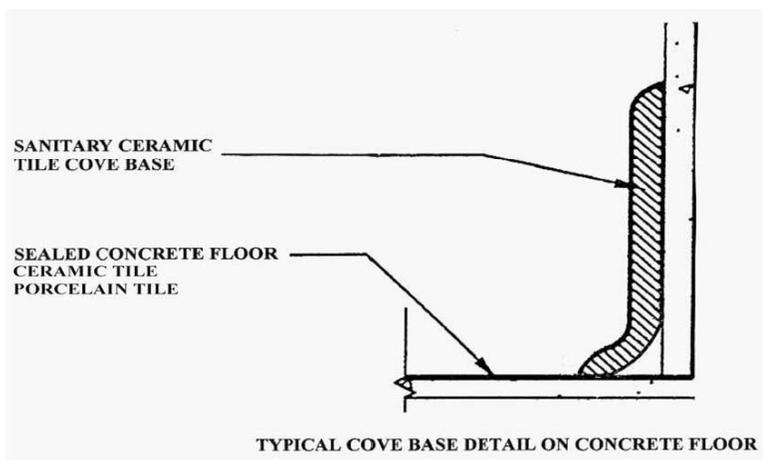
- A. The floor shall be a smooth, single pour variety.
- B. Flooring shall continue up the walls, partitions and up the toe kick of stationary cabinetry a minimum of four (4) inches forming a 3/8 inch minimum radius base cove.
- C. The floor shall be sealed with an Environmental Health approved, USDA approved, 2-component water based epoxy concrete floor sealant.
- D. Concrete floor areas with open seams, pitted, chipped, or rough surface areas, shall be covered with an approved tile and base cove material.

V. Cove Base

Only a pre-formed cove base molding (a.k.a. SpeedCove®), slimfoot ceramic or porcelain tile base cove, or a fabricated 3/8" radius metal cove may be installed on sealed concrete floor.

Note 1: Vinyl, rubber topset or wood base cove will not be approved in any areas of a food facility where a **SMOOTH, continuously covered floor is required.** (CalCode Section 114268)

Note 2: In walk-in coolers, a metal topset base may be installed in lieu of a continuously covered flooring against the metal walls if the base cove and wall finish are the same type of metal. (i.e., aluminum base on an aluminum wall) The base cove must have a minimum 3/8" radius cove and be sealed to both the floor and the wall with a clear silicone based sealant.



FLOORING USE GUIDELINES

Kitchens with cooking equipment (ranges, fryers, ovens, etc.) and very heavy use facilities:

- Quarry tile
- Aggregate seamless troweled-on epoxy floorings (1/4-inch thickness minimum)
- Homogenous sheet vinyl flooring with heat welded seams, .080 minimum thickness.

Medium to light facility use (small restaurants and deli's, coffee shop, mini-marts, etc.), areas with high moisture (around mop sinks, WAREWASHING), service counters and FOOD PREPARATION areas:

Above types, or:

- Quarry tile, ceramic or porcelain tile (with slip resistance)
- Aggregate seamless epoxy flooring (1/4-inch thickness)
- Homogenous sheet vinyl flooring with heat welded seams, .080 minimum thickness.

Food and food related storage, restrooms, lockers or other lower use areas:

Above types, or:

- Quarry tile, ceramic or porcelain tile (with slip resistance)
- Aggregate seamless epoxy flooring (1/4 inch thickness)
- Homogenous sheet vinyl flooring with heat welded seams, .080 minimum thickness.

Storage (dry storage in original containers only, no open foods).

Above types, or:

- Concrete with an approved, water-base sealant.

Walk-ins and Reach-ins:

- Quarry tile or sealed concrete floor (with slip resistance)
- Aggregate seamless epoxy flooring (1/4 inch thickness)
- Concrete with an approved, 2-component water based epoxy concrete floor sealant.

NOTE:

Surface repellants must be reapplied at least once a year.

Epoxy grout shall be used with tile floor installations.

Non-skid tile or abrasive epoxy flooring SHALL BE LIMITED to walkway areas ONLY. Smooth floor shall be installed under all equipment and on all base cove areas.

Preparation of the subfloor surface is often the issue when a floor prematurely fails. Remove grease, dirt and chemicals that interrupt the sealing or adhering process.