



Almost Unbelievable! Classic "S" Mission Tile

THE LEADER IN THE CLAY ROOF TILE INDUSTRY IN THE U.S.A.



Classic "S" Mission Exposure Size: 16" L x 10" O.C. Number of Pieces/Sq: 90 PCs Weight per Sq: 788 lbs IAPMO ES 0356 • TDI RC-21 • Miami Dade County NOA No. 19-1021.26 Class A (ASTM E108) • Grade 1 (ASTM C1167)



1985 Sampson Avenue, Corona, CA 92879 Order Desk: 1-800-736-6221 Tel: 951-736-9590 • Fax: 951-736-6052 www.mca-tile.com





Coral Canyon at Crystal Cove, Newport Coast, CA - CB364-R Vintage Carmel Blend. Enhanced Starter Eave Application

Classic "S" Mission[™] Tile

MCA is proud to announce the most recent addition to our standard tile profile lines- our Classic "S" Mission Tile.

Classic "S" Mission offers a true two-piece tile look while offering the installation and weight savings of a standard "S" tile. Classic "S" installed with a two-piece eave or enhanced starter eave will astound you with the almost unbelievable look of two piece tile. Fooling all but the most experienced, "only your roofer will know for sure....."

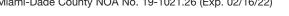
Classic "S Mission tile is available in Natural Red or in an array of colors, blends and textures, including sand cast, to create a signature roof for your custom home or project.

Classic "S" can qualify for LEED points and save the end user money and energy. A 50-Year Limited Warranty is available on all MCA Tiles.

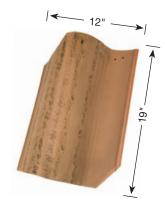
For more information, please contact MCA Sales office at 1-800-736-6221 or email sales@mca-tile.com.

CC/CODES, CERTIFICATIONS

- IAPMO UES ER-356* • TDI Approval RC-21
- Class A, E108 (UL790) • ASTM C1167 Grade 1
 - Made in USA
- Florida Building Code, FL22539.4 •Miami-Dade County NOA No. 19-1021.26 (Exp. 02/16/22)



* IAPMO UES Evaluation Report covers City of Los Angeles and is in lieu of ICC-ES



TILE SPECIFICATIONS:

Actual size:	19" x 12"
Exposed size:	16" x 10" O.C.
Weight per square:	788 lbs.
Weight per piece:	8.75 lbs.
No. of pieces per sq:	90 pcs

METRIC TILE SPECIFICATIONS:

Actual size:	483mm x 305mm
Exposed size:	406mm x 254mm O.C.
Weight per M2:	35.56 kg/m2
Weight per piece:	3.67 kg.
No. of pieces per M2:	9.69 pcs/M2
Metric conversion of lumber is actual dimensions of lumber: use	

lumber of the closest dimensions available. *Dimension of the head of the tile.

Classic "S" Mission[™]Tile Two Piece Eave Application



TWO PIECE EAVE PRODUCT FEATURES

- Cost-effective two-piece tile look with twopiece eave line
- Transition from two-piece eave into Classic "S" Field tile virtually seamless
- Compatible Turret Tile option available



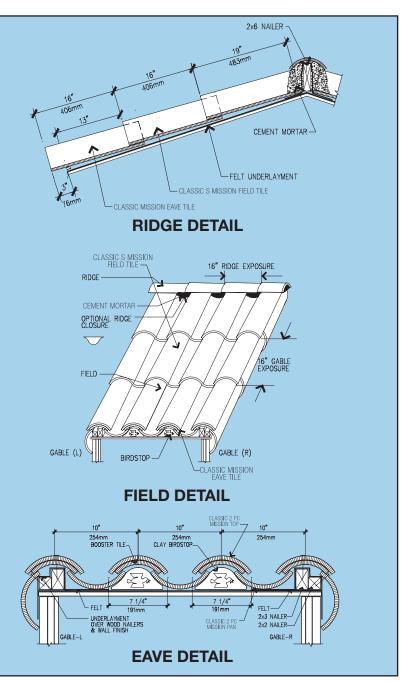


TWO PIECE EAVE

CB386-SC Marco Blend

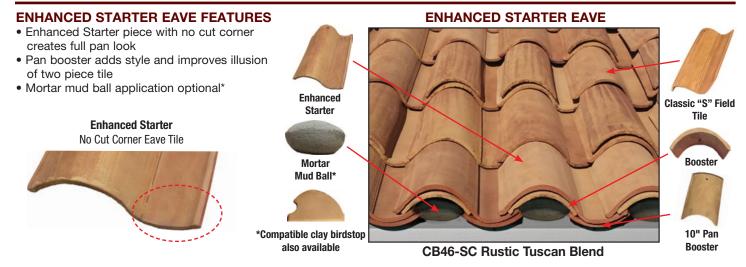
TWO PIECE EAVE APPLICATION METHOD

- (1) At roof pitches of 3:12 and steeper, provide a minimum of two layers ASTM D-226 Type 30 (14kg) felt or upgraded material. Provide in strict accordance with the pertinent requirements of governmental and/or other agencies having jurisdiction.
- (2) Chalk Lines: Chalk horizontal and vertical guide lines on the membrane to assure water tightness and proper appearance
- (3) Birdstops, boosters, Classic Two Piece Pan & Top:
 - a. Install the specified clay birdstops or concrete mud ball birdstop full length of all eaves.
 - Install first row of Classic Two Piece Mission Pan tiles 13" (330mm) from the eave, leaving a 3" (76mm) overhang.
 - If rain gutter is involved, use 1 ½" (38mm) overhang. c. Install booster above birdstops.
 - Install Classic Two Piece Mission Top tiles directly above booster tiles; length exposure shall not exceed 16" (406mm) centers, and width exposure shall not exceed 10" (254mm) centers.
- e. Install the specified nailers at ridges, rakes and gables.
- (4) Install Classic S Mission field tile in the 2nd row from left
 - to right, beginning at the lowest portion of the roof.
 - a. Install each tile successively, fastening each tile with the specified fasteners.
 - Length of exposure on field tile shall not exceed 16" (406mm) on centers, and width exposure on field tiles shall not exceed 10" (254mm) on centers.
 - c. Install ridge, hip, and valley tiles in accordance with pertinent requirements of governmental agencies having jurisdiction.
 - Provide cement mortar at all ridges and hips to completely seal the area under the ridge and hip.
 Completely and neatly fill and point-up all voids.
- (5) To avoid color patterning, checker boarding, spotting and stair stepping:
 - a. After the installation of each 80 ~100 roofing tiles, make a visual inspection from the ground level and at a distance from the building of about 40 feet (12m);
 - b. Verify that tile courses follow straight and true lines;
 - c. Verify that color range is smooth with no abrupt changes.
 - d. Make necessary corrections before proceeding with further installation.
- (6) For more detailed installation information, please contact MCA Sales Office at 800-736-6221 or sales@mca-tile.com





Enhanced Starter Eave Application



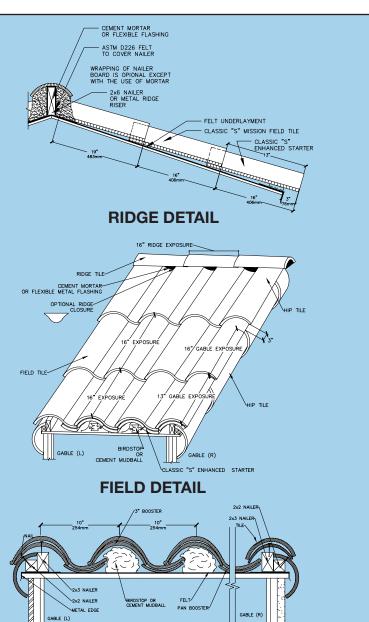
ENHANCED STARTER EAVE APPLICATION

- (1) At roof pitches of 3:12 and steeper, provide a minimum of two layers ASTM D-226 Type 30 (14kg) felt or upgraded material. Provide in strict accordance with the pertinent requirements of governmental and/or other agencies having jurisdiction.
- (2) Chalk Lines: Chalk horizontal and vertical guide lines on the membrane to assure water tightness and proper appearance
- (3) Birdstops, boosters, enhanced starter, and pan booster:
 - a. Install the specified clay birdstops or concrete mud ball birdstop full length of all eaves.
 - Install first row of pan booster tiles 13" (330mm) from the eave, leaving a 3" (76mm) overhang.
 If rain gutter is involved, use 1 ½" (38mm) overhang.
 - c. Install booster above birdstops or mud balls.
 - d. Install enhanced starter tiles directly above booster
 - tiles; length exposure shall not exceed 16" (406mm) centers, and width exposure shall not exceed 10" (254mm) centers.
- e. Install the specified nailers at ridges, rakes and gables.
- (4) Install Classic S Mission field tile in the 2nd row from left to
 - right, beginning at the lowest portion of the roof.
 - a. Install each tile successively, fastening each tile with the specified fasteners.
 - Length of exposure on field tile shall not exceed 16" (406mm) on centers, and width exposure on field tiles shall not exceed 10" (254mm) on centers.
 - c. Install ridge, hip, and valley tiles in accordance with pertinent requirements of governmental agencies having jurisdiction.
 - Provide cement mortar at all ridges and hips to completely seal the area under the ridge and hip.
 - (2) Completely and neatly fill and point-up all voids.

(5) To avoid color patterning, checker boarding, spotting and stair stepping:

- After the installation of each 80 ~100 roofing tiles, make a visual inspection from the ground level and at a distance from the building of about 40 feet (12m);
- b. Verify that tile courses follow straight and true lines;
- c. Verify that color range is smooth with no abrupt changes.
- d. Make necessary corrections before proceeding with further installation.
- (6) For more detailed installation information, please contact MCA Sales Office at 800-736-6221 or sales@mca-tile.com

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EAVE DETAIL

Classic "S" Mission[™]Tile Standard Eave Application



STANDARD EAVE PRODUCT FEATURES

- · Easy and cost-effective installation
- US Patented S Crown and Pan breaking line creates illusion of two piece tile
- · Balanced crown height and shape
- Compatible Turret Tile option available



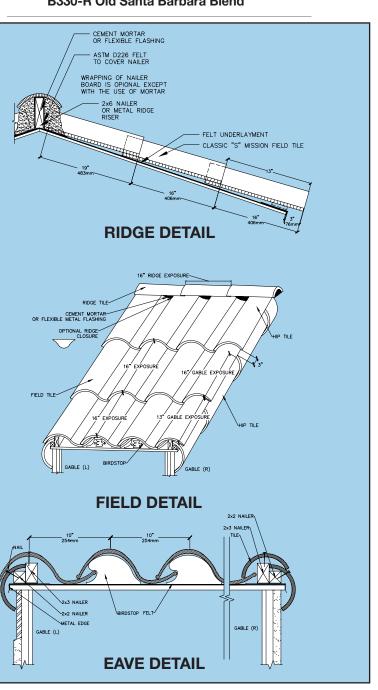
Classic "S" Field Tile



B330-R Old Santa Barbara Blend

STANDARD EAVE APPLICATION

- (1) At roof pitches of 3:12 and steeper, provide a minimum of two layers ASTM D-226 Type 30 (14kg) felt or upgraded material. Provide in strict accordance with the pertinent requirements of governmental and/or other agencies having jurisdiction.
- (2) Chalk Lines: Chalk horizontal and vertical guide lines on the membrane to assure water tightness and proper appearance
- (3) Installing Classic "S" Mission roofing tiles:
 - a. Install the specified clay birdstops or concrete mud ball birdstop full length of all eaves.
 - b. Install first row of Classic "S" tiles 13" (330mm) from the eave, leaving a 3" (76mm) overhang, If rain gutter is involved, use 1 ¹/₂" (38mm) overhang. c. Install the specified nailers at ridges, rakes and gables.
- (4) Install Classic S Mission field tile in the 2nd row from left to right, beginning at the lowest portion of the roof.
 - a. Install each tile successively, fastening each tile with the specified fasteners.
 - b. Length of exposure on field tile shall not exceed 16" (406mm) on centers, and width exposure on field tiles shall not exceed 10" (254mm) on centers.
 - c. Install ridge, hip, and valley tiles in accordance with pertinent requirements of governmental agencies having jurisdiction.
 - (1) Provide cement mortar at all ridges and hips to completely seal the area under the ridge and hip.
 - (2) Completely and neatly fill and point-up all voids.
- (5) To avoid color patterning, checker boarding, spotting and stair stepping:
 - a. After the installation of each 80 ~100 roofing tiles, make a visual inspection from the ground level and at a distance from the building of about 40 feet (12m);
 - b. Verify that tile courses follow straight and true lines;
 - c. Verify that color range is smooth with no abrupt changes.
 - d. Make necessary corrections before proceeding with further installation.
- (6) For more detailed installation information, please contact MCA Sales Office at 800-736-6221 or sales@mca-tile.com





The Leader in Custom Colors & Blends



Custom Home in San Diego, CA CB388-R Vintage Green Blend with Two Piece Eave Application





800-736-6221



The Leader in Custom Colors & Blends



Coral Canyon at Crystal Cove, Newport Coast, CA - CB46-SC Rustic Tuscan Blend with Enhanced Eave Starter Application



Residence in Northern California - B330-R Old Santa Barbara Blend with Two Piece Eave Application





Custom Home in Temecula, CA - Custom Colors with Standard Eave Application



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Designer's Selections





B301 Old Mission Blend Solar Reflectance Avg. - 0.42 Thermal Emittance Avg. - 0.86



B308 Canyon Red Blend Solar Reflectance Avg. - 0.38 Thermal Emittance Avg. - 0.85



B318-R Cafe Rustic Blend Solar Reflectance Avg. - 0.37 Thermal Emittance Avg. - 0.89



B340-R Vintage Red Blend Solar Reflectance Avg. - 0.30 Thermal Emittance Avg. - 0.84



70% B392-R C. Mahogany 30% B393-R C. Burnt Sienna Solar Reflectance Avg. - 0.34 Thermal Emittance Avg. - 0.85



B331-R Zorro Blend Solar Reflectance Avg. - 0.38 Thermal Emittance Avg. - 0.82



B341 Carmel Blend Solar Reflectance Avg. - 0.38 Thermal Emittance Avg. - 0.88



B330-R Old Santa Barbara Blend Solar Reflectance Avg. - 0.33 Thermal Emittance Avg. - 0.84



B317-R Taupe Smoke Blend Solar Reflectance Avg. - 0.29 Thermal Emittance Avg. - 0.84

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Designer's Selections



CB46-SC Rustic Tuscan Blend Solar Reflectance Avg. - 0.47 Thermal Emittance Avg. - 0.83



B332-R Houstonian Blend Solar Reflectance Avg. - 0.34 Thermal Emittance Avg. - 0.84



F46-SSC Veneto Diores Blend Solar Reflectance Avg. - 0.40 Thermal Emittance Avg. - 0.84



CB47-SM Rustic Provence Blend Solar Reflectance Avg. - 0.42 Thermal Emittance Avg. - 0.84



B320-R Rustic Red Blend Solar Reflectance Avg. - 0.38



CB364-R Vintage Carmel Blend Solar Reflectance Avg. - 0.32 Thermal Emittance Avg. - 0.83



F4645-SSC Tuscan Gold Blend Solar Reflectance Avg. - 0.39 Thermal Emittance Avg. - 0.85



CC135L-R Rustic Red Light Solar Reflectance Avg. - 0.38 Thermal Emittance Avg. - 0.84



CB389-SC Marco Blend Solar Reflectance Avg. - 0.36 Thermal Emittance Avg. - 0.84

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Designer's Selections





CB2F3445SC Chocolate Mocca Blend Solar Reflectance Avg. - 0.34 Thermal Emittance Avg. - 0.84



2F45-SSC Tierra Brown Blend Solar Reflectance Avg. - 0.33 Thermal Emittance Avg. - 0.86



CB360-SC Cafe Mocca Blend Solar Reflectance Avg. - 0.30 Thermal Emittance Avg. - 0.84



B2F45MSCXL Tierra BrownExtra Light Blend Solar Reflectance Avg. - 0.37 Thermal Emittance Avg. - 0.85



2F43-SSC Villa Rosso Blend Solar Reflectance Avg. - 0.33 Thermal Emittance Avg. - 0.84



B305 Weathered Green Blend Solar Reflectance Avg. - 0.43 Thermal Emittance Avg. - 0.82



Residence in Northern California - B330-R Old Santa Barbara Blend with Two Piece Eave Application

NOTE: Some tiles may have slight variations in color due to the inherent nature of clay tile and the limitations of the lithographic printing process.

Color Selection





NOTE: Some tiles may have slight variations in color due to the inherent nature of clay tile and the limitations of the lithographic printing process.



Suggested Architectural Specifications



Verify that deck surfaces are clean and dry prior to

Install the specified membrane in strict accordance

Remove all foreign particles from substrate to

assure proper seating and to prevent water

with pertinent requirements of governmental

B. On vertical applications, and on extremely steep pitches

Set the butt of each tile in a bead of the specified plastic cement or sealant, or provide stainless steel "Wind Locks" at intervals. Use plastic cement and

sealant carefully, and avoid smearing the exposed tile surface.

membrane to assure water tightness and proper

Space the chalk lines by measuring the delivered tiles for average length and width exposures.

Do not exceed an exposure length 1/4" (6 mm)

a. Install the specified clay birdstops or concrete mud ball full length of all eaves. Install first row of Classic Two Piece Mission Pans 13" (330mm) from the eave, leaving a

Paris 13 (Sourim) from the eave, leaving a 31 (Tomm) overhang; exposure length shall not exceed 16" (406mm) centers, and width exposure shall not exceed 10" (254mm) centers. If rain gutter is involved use 1 1/2" (38mm) overhang.

Install Classic Two Piece Mission Tops directly above booster tiles; length exposure shall

Install the specified nailers at ridges, rakes, and

not exceed 13" (330 mm) centers, and width exposure shall not exceed 10" (254 mm)

a. Install each tile successively, fastening each tile

with the specified fasteners. Length of exposure on field tile shall not exceed 16" (406 mm) on centers, and width exposure

on field tiles shall not exceed 10" (254 mm) on

Install ridge, hip, and valley tiles in accordance

with pertinent requirements of governmental agencies having jurisdiction.

(1) Provide cement mortar at all ridges and hips to completely seal the area under ridge and

hip tiles.(2) Completely and neatly fill and point up all

a. After the installation of each 80-100 roofing tiles, make a visual inspection from the ground level

Verify that tile courses follow straight and true

c. Verify that color range is smooth with no abrupt

changes.d. Make necessary corrections before proceeding with further installation.

and at a distance from the building of about 40 feet (12m);

To avoid color patterning, checker boarding,

Install Classic "S" Mission tile in rows from left or right, beginning at the lowest portion of the roof.

3.3 INSTALLING CLASSIC "S" MISSION™ WITH TWO PIECE EAVE TILES:

Install booster above birdstops

1. Chalk horizontal and vertical guide lines on the

3.2 INSTALLATION GENERAL

damade

installation of membrane.

agencies having jurisdiction.

here wind currents may cause lift

A. Membrane:

1.

2.

3.

C. Chalk lines:

2.

3.

b.

e.

b.

3

b.

3.4 CLEANING UP:

centers.

aables

voids

spotting, and stair stepping:

appearance

beyond the average.

1. Birdstops and booster starters:

1. GENERAL (use the standard Part1 of your office)

2. PRODUCTS

- 2.1. ROOFING TILE:
 - Where indicated on the Drawings, provide Classic "S" Mission™ Style roofing tile manufactured by M.C.A. Clay Roof Tile, Inc., 1985 Sampson Avenue, Corona, CA 92879, phone 800-736-6221, FAX (951) 736-6052, in color "_____", and with birdstop at eaves.
 - Comply with pertinent provisions of ASTM C1167 (Grade 1), and IAPMO ES 0356, and with the *Tile Roof Institute Manual*.
- 2.2. Other materials
- A. Membrane:
 - Under all Classic "S" Mission™ Style roofing tile on 1. roof pitches less than 3:12, except where heavier membrane is required by governmental agencies having jurisdiction, provide not less than two layers of 30 lb (14 kg) asphalt-saturated felt placed at right angles to roof pitch, mopped solidly between layers with 25 lbs (10 kg) of hot asphalt and mopped solidly on top of layers with hot asphalt
 - At roof pitches of 3:12 and steeper, provide a 2 minimum of two layers of membrane complying with ASTM D226, Type 30 (14 kg), or upgrade material.
 - If Polyset AH160 roof tile adhesive is used, use 3 approved underlayment and apply large paddy placement (see Polyset application detail).
 - Provide in strict accordance with pertinent requirements of governmental and/or other agencies having jurisdiction. 4

B. Nailers

- 1. Where indicated on the Drawings or otherwise required for proper nailing, provide:

 - a. 2" x 6" (50 mm x 152 mm) nailing strips at all hips and ridges;
 b. 2" x 3" (50 mm x 76 mm) nailing strips under first row of cover tile after gable roll, with adjacent 2" x 2" (50 mm x 50 mm) nailing board along relar olds).
 - along rake side; (50 mm x 102 mm) nailing board full c. length from ridge to eave for all top tile where architect specifies 2" x 4" nailing system.

C. Flashing:

- 1. Flash at roof valleys in strict accordance with IBC or required by local governmental agencies having jurisdiction:
 - For valley flashing use not less than 0.019" (G90) (No. 26 gage) (.48 mm thick) corrosion resistant metal, extending at least 11" (279 mm) away from the centerline of the valley each way; " a.
 - Provide a splash diverter rib not less than 1 b. (25 mm) high at the flow line, formed as part of the flashing;
 - Provide flashing overlap of not less than 4" c. (102 mm).
- For other flashing use not less than 0.019" (G90) (No. 26 gage) (.48 mm thick) corrosion resistant 2 metal; at sides of dormers, chimneys, and other extend flashing at least 6" (152 mm) up the vertical surface.
 - a. b.
 - Thoroughly counterflash. Extend flashing under tile at least 4" (102 mm), and turn the edge up 1-1/2" (38 mm).
- At lower side of dormers, chimneys, and other walls, extend flashing at least 3" (76 mm) up the wall and 4" (102 mm) over the tile, and then 3 thoroughly counterflash.
- At wood saddles and returns, line with not less than 0.019" (G90) (No. 26 gage) (.48mm thick) corrosion resistant metal or 16 oz (454 g) copper extending up sloping roofs not less than 12" (305 mm), and more where necessary, and up vertical walls not less than 6" (152 mm), thoroughly counterflashed. 4.
- Make all counterflashing plugged, pointed, and 5. secure.
- Extend gutter metal up the roof to a point higher than the outer edge of the gutter. 6.

OM/OPERATION, MAINTENANCE

Over 100 years of product knowledge has enabled us to create a roof tile that is highly resistant to chipping, wearing and fading. We stand behind our product 100%. To install MCA Tile, use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and

Clay Roof Tile

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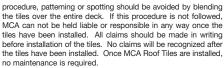
the methods needed for proper performance of the work. MCA Clay Roofing Tile may have color variations due to the inherent natural characteristics of the material used. To avoid color patterning, checkerboarding, spotting and stairstepping, the installer should periodically (after installing 80 pieces of roof tile) check the roof color from the ground level at approximately 40 feet (12m) from the building for a color "range." By following this

MARUHACHI CERAMICS OF AMERICA, INC.

1-800-736-6221 FAX: (951) 736-6052

1985 Sampson Ave., Corona, CA 92879, U.S.A.

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A. Upon completion of the work of this Section, and as a

condition of its acceptance, completely remove from the job site all tools, equipment, debris, and surplus materials pertaining to this portion of the work.

Metric conversion of lumber is actual dimensions of lumber; use lumber of the closest dimensions available



D. Mortar, plastic cement, and sealant

(Edit as required. Delete non-applicable statements.

- To prevent lift up of tiles at hip, ridge, and gable, provide plastic cement at headlap portion of those tiles
- At gable, hip, ridges, and other conditions, provide a non-running, heavy body, plastic cement composed of asphalt and other mineral ingredients 2 complying with ASTM D4586 and Fed Spec SSC-153 Type 1.
- 3. When using sealant in lieu of the plastic cement provide a silicone sealant complying with ASTM D1002 or ASTM E42.
- E. Fasteners:
 - Fasteners shall comply with IRC section R905.3.6 and IBC section 1507.3.6 and UBC Section 1507.3. Corrosion resistant meeting ASTM A641 Class I or approved equal, number 11 gauge diameter and of sufficient length to properly penetrate 3/4" into or through the thickness of the deck or batten, whichever is less. The head of the nail used for tile fastening shall not be less than 5/16" and shall comply with ASTM F1667 for dimensional tolerances. Other fastening systems such as screws, wire, or adhesive based systems as approved by code or local building officials will be allowed.
 - In areas designated by the building official as being subject to high winds that exceed 80 mph, or where roof height exceeds 40 ft (12m) above grade, attach all tiles in strict accordance with Chapter 15 of UBC (or IBC Table 15-D-1, Footnote 2), or as required by local governmental agencies having jurisdiction.
 - Nail the heads of all tiles;
 - b. Fasten the noses of all eave course tiles with approved clips; Nail rake tiles with two nails
 - d. Set the noses of all ridge, hip, and rake tiles in a bead of approved mastic.
 - On slopes over 24:12, securely fasten the nose end of all tiles. 3.
 - 4. Provide "Wind Locks" where directed by the Architect
 - Tile tie systems of stainless steel or galvanized wire 5. may be used where approved by governmental agencies having jurisdiction.
 - At snow areas use "Wind Locks" with straw nails. In lieu of straw nails, install vertical 2x4 nailer 6 boards full length from ridge to eave for all top tiles.
- F. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect
- 2.3 FOR METAL OR POURED CONCRETE ROOF DECKS:
- A. Where design indicates concrete roof deck or metal roof deck, Twisted Tile-Tie system or Polyset AH160 roof tile adhesive may be used where approved by the governmental agencies having jurisdiction.
 - If Twisted Tile-Tie system is used, follow MCA 1. Tile-Tie system detail.
 - а
 - At coastal areas use only stainless steel; At high wind and snow areas use "Wind Locks"; Twisted Wire anchor span is no more than b.
 - c. 4 feet
 - If Polyset AH160 roof tile adhesive is used, apply 2 large paddy placement (see Polyset application detail)

3. EXECUTION

- 3.1 SURFACE CONDITIONS:
- Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions have been corrected.