



LEED
QUALIFYING



07 32 00/MCA
BuyLine 5828



Blending with Nature



Gold Nugget Award Winner
Photo provided courtesy of Andrew Pierce Builders
Palm Desert, CA
Two-Piece Corona Tapered Mission,
Custom Blend CB227-R



Kaneohe Bay, Hawaii Custom House - Weathered Green Blend 305 Straight Barrel Mission with various sizes of Turret Tile™

MR/MANUFACTURER

If one word were to summarize M.C.A. and its tile products, that word would be quality. M.C.A. has made a commitment to research and development, so that we can be sure every tile you purchase is state of the art in design, specialization and manufactured quality.

From M.C.A.'s auspicious beginning over 100 years ago, we have progressed to being the leading manufacturer of superior clay roofing tile. Our professional experience allows us to produce tile with accuracy and expertise that has become synonymous with the M.C.A. name throughout the world.

Our completely computerized production lines allow us to manufacture a wide variety of colors. In every phase of our production, with every variety of tile, our goal is always the same: to manufacture a clay tile that is of consistent high quality.



M.C.A. Corona Plant, California

PP/PRODUCT PRESENTATION

M.C.A. has created many popular glazed and flashed colors. Standard styles include the One Piece "S" Mission, Corona Tapered Mission™, Turret Tile®, Oriental, MF108 Flat™ and Improved "S"™ styles. M.C.A. also offers custom and other unique products.

FLEXIBILITY

M.C.A.'s enormous color selection and range of styles enable you to have greater flexibility to create anything from the most traditional to contemporary roof designs.

DURABILITY

M.C.A.'s tiles are designed to stand up against even the harshest elements: including, earthquakes, heavy rain, strong wind, fire and freeze/thaw conditions. Our tiles are rated Grade 1 conforming to ASTM C1167 industry standards.

AUTHENTICITY

M.C.A.'s roofing tile is made of 100% clay that is carefully mined and tested during each manufacturing process.

FIRE RESISTANCE

M.C.A.'s firing process makes our tile a wise investment. Virtually impervious to fire, M.C.A. tiles are rated "Class A" ASTM E108 Test (UL790) Approved.

WIND RESISTANCE

M.C.A.'s One Piece "S" Mission can be installed in high wind areas. For example, up to 155 MPH in Guam or the Caribbean and up to 120 MPH in Metro-Dade County.

AC/AVAILABILITY, COST

M.C.A.'s state of the art production system enables us to be a leader in the clay roof tile industry. Our tile is beautiful, affordable, and priced competitively with other tile manufacturers. Call M.C.A. for a current lead time on our tile.

COMPETITIVELY PRICED

M.C.A.'s completely automated production allows us to offer you a quality tile at a competitive price. There is no reason to settle for a substitute when you can have a roof tile that is both beautiful and affordable.

USE AND APPLICATIONS

A world apart from anything you have specified before, M.C.A. Clay Roof Tile is a major element in roofing design. Our product has been used extensively on military, custom, residential, commercial, educational and institutional buildings. M.C.A. Clay Roof Tile is well suited for applications in areas designated for high wind and freeze/thaw conditions. A 3:12 pitch is a minimum application for a roof. However, many installations include steeper pitched mansard roofs, turrets and unique custom designs.

CC/CODES, CERTIFICATIONS

- ICC Report ESR-2144
- ASTM C1167, Grade I
- Miami-Dade County, Florida
NOA No. 07-0301-.07, exp. 07/11/12
One Piece "S" Mission.
- Miami-Dade County, Florida
NOA No. 07-0301-.08, exp. 08/02/12
MF108 Flat Tile.
- Florida Building Code Approval, FL1109
- Class A, E108 Test (UL790)
- City of Los Angeles Approval Research
Report No. RR24576 (CSI07320)

WARRANTY

A 50 Year Limited Warranty is available on all M.C.A. Tiles. Please request details.

ONE PIECE "S" MISSION - NATURAL RED & FLASHED COLORS

Over 100 years of experience has allowed us to produce a superior clay tile that will last for generations. Available in Natural Red, True Buff™ and flashed or blended colors. Having only 75 pieces of tile per square, the One Piece "S" style is a tremendous labor saving product. It is used widely on residential, commercial, military and institutional buildings. Custom colors and blends are available.

Natural Red
F-40



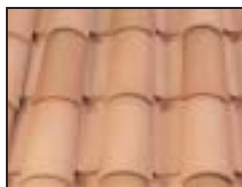
Custom House, San Diego, California
Natural Red, F-40



CORONA TAPERED MISSION™ - NATURAL RED & FLASHED COLORS

For the timely elegance of old world tradition, M.C.A. uses new technology to create our Corona Tapered Mission™ tile. Originally handcrafted by molding clay to the body's thigh, this heritage has spanned the centuries for today's installations. Old Spanish or Mediterranean designs are well suited for Corona Tapered Mission™ tile and will enhance the beauty of your project. Custom blends and colors are also available.

Palace
Blend
B338



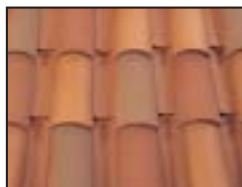
Bellagio Resort, Las Vegas, NV
Various Custom Blends



TURRET TILE®* - NATURAL RED & FLASHED COLORS

Turret Tile® is the latest innovation to hit the clay tile market. True turret roof designs or fan shaped applications are now possible without compromise to design concepts. M.C.A. has developed a system to custom fit any size and pitch of turret. M.C.A.'s newly developed Turret Tile® system has made this tile more affordable, easier to install and offers a unique solution for your design. Available in Natural Red, blends and glazed colors. Custom colors and custom blends also available.

Old Mission
Blend®, B301



Club House, Lake Las Vegas
Old Mission Blend®, B301, with Turret Tile®,



ORIENTAL STYLE - NATURAL RED & GLAZED COLORS

M.C.A.'s Oriental tile is a unique, interlocking, high quality tile made in the Japanese tradition. Without the use of ornaments, this tile is used in western contemporary designs. The most traditional color used for a Japanese style tea house or temple is the Japanese Black, C-09. This style has many accessory pieces and detailed ornaments available for use. Various glazed colors are available.



Re-Roof Project, Encino, California
Japanese Black, C-09



MF108 FLAT™ - NATURAL RED & GLAZED COLORS

M.C.A.'s MF108 Flat™ interlocking tile accentuates any architectural theme and will keep its distinctive appearance while withstanding constant exposure to weather conditions. This beautiful clay tile is available in Natural Red and various glazed colors.



Custom House, Corpus Christi, Texas
Blue Glaze, C-01



ROOF ORNAMENTS - NATURAL RED & FLASHED COLORS - NEW!

M.C.A. now offers roofing ornaments in a variety of styles and colors, from the traditional elegant ridge spikes and balls to the dramatic eye catching dragons. M.C.A.'s roofing ornaments are also the perfect compliment to any turret style roof. A variety of standard and custom colors available.



see us at
Sweets.com



SUGGESTED ARCHITECTURAL SPECIFICATIONS

(Edit as required. Delete non-applicable statements.)

1. GENERAL

(use the standard Part1 of your office)

2. PRODUCTS

2.1 - ROOFING TILE

A. Styles:

Select one or more of the following:

One Piece "S" Mission, Corona Tapered Mission™, Turret Tile®, Oriental, MF108 Flat™ and Improved S™ tile.

B. Description:

The roofing tiles are machine formed from natural clays, fired to various degrees to obtain the required strength. Tiles and tile accessories are fired to vitrification.

- Where indicated on the drawing, provide tile manufactured by M.C.A. (Maruhachi Ceramics of America, Inc.) 1985 Sampson Avenue, Corona, California 92879, phone (800) 736-6221, fax (951) 736-6052, in color code and style _____. _____ (Select color from the current catalog and state color code and style here).
- Select the necessary accessory tiles according to desired style and look. See each style for available accessories.
- Comply with pertinent provisions of ASTM C1167 (Grade I) and of ICC - ES Legacy Report ER-4202

2.2 - OTHER MATERIALS

A. Membrane

1. General:

- Provide in strict accordance with pertinent requirements of the governmental agencies having jurisdiction.
- Double the membrane at hips, valleys and ridges.
- Place parallel to ground level, minimum lapping 2 1/2" (64mm) horizontally and 6" (152mm) vertically.
- Carry the felt 6" (152mm) up all vertical surfaces and 4" (102mm) over gutter and valley metal.
- Fasten all edges with large headed galvanized nails on 6" (152mm) centers.
- In areas subject to ice build-up, comply with Section 3203 (d) 3 of U.B.C.

- At all areas where clay roof tiles will be installed, provide a membrane consisting of not less than one layer of ASTM D-226 Type 30 (14kg) felt or one layer of ASTM D-2626 Type 40 (18kg) felt.
- At all areas where MF108™ Flat tiles will be installed, provide a membrane consisting of not less than two layers ASTM D-226 Type 30 (14kg) felt or one layer of ASTM D-2626 Type 40 (18kg) felt.

B. Wood Strips, Birdstops and Battens:

1. Eave Strip:

- Where One Piece "S", Corona Tapered Mission™ and Turret Tile® styles will be installed, provide Birdstops or 1 x 2 (18mm x 36mm) wood strip full length at all eaves to raise the first course of roof tiles.
- Where Oriental tiles are to be installed, provide 2 x 2 (36mm x 36mm) wood strip full length at all eaves to raise first course of roof tile, thereafter use 1 x 2 (18mm x 36mm) wood battens installed over the felt horizontally at 9" (228mm) centers for the first course and 9 1/2" (246mm) thereafter.
- Where MF108 Flat™ tiles will be installed, provide 2 x 2 (36mm x 36mm) wood strip

full length at all eaves to raise the first course of roof tiles.

C. Flashings:

- Flash at roof valleys in strict accordance with Chapter 15 of U.B.C. or IBC pertinent requirements of the governmental agencies having jurisdiction.
 - For flashing and counterflashing, use not lighter than 26 gauge (0.55mm) corrosion-resistant metal extending at least 11" (711mm) from the centerline of the valley each way.
 - Provide a splash diverter rib not less than 1" (25mm) high at the flow line formed as part of the flashing.
 - Provide the flashing overlap of not less than 4" (102mm).
- At sides of dormers, chimneys and other walls extend flashing at least 7" (188mm) up the vertical surface.
 - Thoroughly counterflash.
 - Extend flashing under tile at least 4" (102mm) and turn the edge up 1" (25mm).
- At lower side of dormers, chimneys and other walls extend flashing at least 4 1/2" (114mm) up the wall, 4" (102mm) over the tile and thoroughly counterflash.
- At wood saddles and returns, line with 16 ounce (454g) copper extending up sloping roofs not less than 12" (305mm) (more where necessary) and up vertical walls not less than 6" (152mm) thoroughly counterflashed.
- Make all counterflashing plugged, pointed and secure.
- Extend gutter metal up the roof to a point higher than the outer edge of the gutter.

D. Mortar, Plastic Cement and Sealant:

- Provide Type M cement mortar complying with ASTM C-270 at all ridges and hips to completely seal the area under the ridge and hip tiles.
- For Gable, Hip and Ridge and other conditions, provide non-running, heavy body plastic cement composed of asphalt and other mineral ingredients complying with ASTM D4586 and Fed. Spec. SSC-153 Type 1.
- When using sealant in lieu of the plastic cement, provide a silicon sealant complying with ASTM D1002 or ASTM E42.

E. Fasteners:

- For tiles and wood strips, use copper or other approved non-corrosive nails, 11 gauge (3mm dia.), large headed, in length sufficient to give proper penetration or a Tyle-Tye® System (not to be used on Oriental tile).
- At plywood decks, use ring shank nails in length sufficient for slight penetration through under-side of the deck.
- At board plank decks, use smooth shank nails at least 1 1/2" (38mm) long to penetrate the underside of the deck.
- Concrete roof deck or metal roof deck, Twisted Tyle-Tye® System of Polypro AH160 roof tile adhesive may be used where approved by the governmental agencies having jurisdiction. (See Twisted Tyle-Tye® System and Polyfoam application detail).
- Provide other materials, not specifically described, but required for a complete and proper installation such as wire ties or wind clips, as selected by the contractor subject to the approval of the architect or local government agency having jurisdiction.

3. INSTALLATION

A. GENERAL: The deck surfaces are required to be clean and dry prior to installation of underlayment. Foreign particles must be cleaned from all interlocking areas to ensure proper seating and to prevent water damming. Cracked or broken tile must be replaced. Tiles on roof slopes less than 3:12 must be applied on solid sheathing over a complying roof covering and with the approval of the building official having jurisdiction.

B. SHEATHING: Sheathing must be structurally adequate to support the loads involved. Sheathing must be solid 1/2" (13mm) or thicker and conform to codes. Fascia boards or Eave strips must be installed to properly elevate the first course of tile when birdstops are not used.

C. UNDERLAYMENT: A minimum of one layer of ASTM D-226 Type 30 (14kg) or one layer ASTM D-2626 Type 40 (18kg) felt must be used in all applications, except for the MF108 Flat™ tile which requires a minimum of two layers of ASTM D-226 Type 30 or one layer ASTM D-2626 Type 40 felt. In areas subject to ice build-up, installation must comply with section 3202 (d) 3 of U.B.C. or pertinent requirements of the governmental agencies having jurisdiction.

D. BATTENS: Where Oriental and MF108 Flat™ tiles are to be installed, battens should be nominal 1 x 2 (18mm x 36mm) lumber, spaced as required and nailed with corrosion-resistant 8d nails at 24" (61cm) on center. The end joints should be separated 1/2" (13mm) every 4' (122cm) to provide for drainage. Minimum 1/4" (6mm) thick spacers cut from asphalt shingles placed between the battens and the decking may be used in lieu of providing the 1/2" (13mm) space between the battens.

E. TILE FASTENING: Each tile is fastened with a minimum of one corrosion-resistant nail not less than No. 11 gauge (3mm dia.), 5/16" (7.9mm) head per tile long enough to penetrate into the batten 3/4" (19mm) or through the thickness of the sheathing, whichever is less.

F. FLASHING: Valley flashing must be a minimum No. 26 gauge (0.55mm) corrosion-resistant metal extending at least 11" (711 mm) from the valley centerline each way. It must have a splash diverter rib not less than 1" (25mm) high at the flow line, formed as part of the flashing. Flashing must have an overlap of not less than 4" (102mm).

G. HIPs, RIDGES AND RAKES: Each hip and ridge tile is nailed to the supporting member with a minimum of one corrosion-resistant nail not less than No. 11 gauge (3mm dia.), 5/16" (7.9mm) head per tile long enough to penetrate the nailer. Each rake tile shall be nailed to the supporting member with a minimum of two corrosion-resistant nails not less than No. 11 gauge (3mm dia.) 5/16" (7.9mm) head per tile long enough to penetrate the nailer. Cement mortar complying with ASTM C-270 Type M is placed at all ridges and hips to completely seal the area under the ridge and hip tiles. Mastic should be used under butt end of tile to inhibit wind damage.

H. Make necessary corrections before proceeding with further installation.

4. CLEANING UP

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.

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 M.C.A. 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

the methods needed for proper performance of the work. M.C.A. 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

procedure, patterning or spotting should be avoided by blending the tiles over the entire deck. If this procedure is not followed, M.C.A. can not be held liable or responsible in any way once the tiles have been installed. All claims should be made in writing before installation of the tiles. No claims will be recognized after the tiles have been installed. Once M.C.A. Roof Tiles are installed, no maintenance is required.



MCA®

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