Oriental-Japanese Style

THE LEADER IN THE CLAY ROOF TILE INDUSTRY IN THE U.S.A.
**Oriental-Japanese Style**

M.C.A.’s Oriental-Japanese tile is a unique, interlocking, high quality tile made in the Japanese tradition. This beautiful clay tile is available in grayish smoked, and various glazed colors and will keep its distinctive appearance while withstanding constant exposure to any weather condition.

Traditional designs, as in a Japanese style temple or teahouse, will feature ornaments in various shapes and sizes. The most traditional color used for a Japanese style teahouse or temple is the C09 Japanese Black. This color originated in China and was brought to Japan over 1400 years ago. Japanese Black, called “Ibushi” in Japan, is smoked and is a through body color.

Without the use of decorative ornaments, Oriental-Japanese Style tile is also suitable for western, contemporary designs.

A 50-Year Limited Warranty is available on all M.C.A. tiles.

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

**CC/CODES, CERTIFICATIONS**
- IAPMO ES 0356 (covers City of Los Angeles and is in lieu of ICC-ES)
- Miami-Dade County, FL NOA No. 12-129.12
- TDI Approval RC-21
- Class A, E108 (UL790)
- ASTM C1167, Grade 1

**TILE SPECIFICATIONS:**
- Actual size: 12" x 12"
- Exposed size: 10 1/2" x 9 1/2"
- Weight per square: 864 lbs
- Weight per piece: 6 lbs
- No. of pieces per sq: 144 pcs

**METRIC TILE SPECIFICATIONS:**
- Actual size: 305mm x 305mm
- Exposed size: 266mm x 241mm
- Weight per M2: 54 kg
- Weight per piece: 3.6 kg
- No. of pieces per square: 15.5 pcs
**Oriental-Japanese Style Products**

Field  
Eave  
*Embossed Eave  
Right Gable  
Left Gable  

*Straight Eave  
Right Gable Corner  
Left Gable Corner  
Ridge Field  
Ridge End  

Ridge Starter  
Ridge Down End  
Ridge Size 5  
Snow Stopper  
Standard Ridge Size 6  

Sumaru Size 5  
Two Forked Ridge  
Three Forked Ridge  
Three Forked Eave  
Three Forked Eave Set  

Kaezu Gable Ornament  
Kaezu Hip Ornament  
Cloud Gable Ornament  
Cloud Hip Ornament  

*Note: the embossed eave and straight eave are special order items*
**Technical Support**

MCA offers free consultations and take offs. Please send us a roofing drawing to scale, or contact our sales office at 1-800-736-7221 or Fax: 951-736-6052 or Email: sales@mca-tile.com
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.
2. PRODUCTS

2.1. ROOFING TILE:

A. Where indicated on the Drawings, provide Oriental Style roofing tile manufactured by M.C.A. Clay Roof Tile Inc., 1985 Sampson Ave., Corona, CA 92879, phone 800-736-6221, Fax (951) 736-6052, in color “______________” and with the appropriate number of the following accessory tiles to complete the installation.

1. Field Tiles - MO01;
2. Eave Tiles - MO02;
3. Gable Tiles - MO03 (right & left as required)
4. Gable Corners - MO04 (right & left as required)
5. Ridge Field - MO05 (optional)
6. Ridge End - MO06;
7. Ridge Starter - MO07;
8. Ridge Down End - MO08;
9. 3-Forked Ridge - MO09;
10. Two Forked Ridge - MO10;
11. Forked Eave - MO11
12. Ridge - MO12
13. Gable Ornaments - MO13 (optional)
14. Other Accessory Tiles (optional)

B. Comply with pertinent provisions of ASTM C1167 (Grade 1), and ICC Research Number ESER2144, with the Tile Roof Institute Manual.

2.2. Other materials:

A. Membrane:

1. At roof pitches less than 4:12, except where heavier membrane is required by governmental agencies having jurisdiction, provide not less than 2 layers of 50 lb (14 kg) asphalt-saturated felt placed at right angles to roof pitch, topped with 36 lb (10 kg) of hot asphalt and mopped solidly on top of layers with hot asphalt or mopped alternate.
2. At roof pitches of 4:12 and steeper, provide a minimum of two layers of membrane complying with ASTM D2388; Type II, or one layer of membrane complying with ASTM D4869, Type IV or upgrade material placed with minimum 2" (51 mm) head lap and 6" (150 mm) sidelap.
3. Provide in strict accordance with pertinent requirements of governmental and/or other agencies having jurisdiction.

B. Wood Battens and nailing:

1. Eave Strip: Where Oriental Style roofing tile will be installed, provide 2" x 2" (50mm x 50mm) wood batten full length at all eaves to raise the first course of roofing.

2. Battens:

a. For roofs with any slope, provide 1" x 2" x 4' (25mm x 50mm x 1.2m) battens, spaced as required, nailed with corrosion resistant 8d nails at 24" (610mm) on centers.

b. Space the battens 1" (25mm) apart at ends for drainage, or use battens of any length when elevated above the membrane by 1/4" (6mm) thick spacers.

3. Where indicated on Drawings or otherwise required for proper nailing, provide 2" x 2" (50mm x 50mm), 2" x 3" (50mm x 76mm) and/or 2" x 6" (50mm x 152mm) nailers at ridge, gables and hip.

C. Flashing:

1. Flash to roof valleys in strict accordance with IBC or required by local governmental agencies having jurisdiction.

a. For valley flashing use not less than 0.019" (G90) (No. 26 gage) (.48 mm thick) corrosion resistant metal, extending at least 1" (26mm) away from the centerline of the valley each way;

b. Provide a splash diverter rib not less than 1" (25 mm) high at the flow line, formed as part of the flashing;

c. Provide flashing overlap of not less than 4" (102 mm).

2. For other flashing use not less than 0.019" (G90) (No. 26 gage) (.48 mm thick) corrosion resistant metal, at chimneys, and other walls, extending at least 6" (152 mm) up the vertical surface.

a. Thoroughly counterflash;

b. Extend flashing under tile at least 4" (102 mm), and turn the edge up 1-1/2" (38 mm).

3. 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 thoroughly counterflash.

4. At wood saddles and returns, line with not less than 0.019" (G90) (No. 26 gage) (.48 mm 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.

5. Make all counterflushing plumbed, pointed, and secure.

6. Extend gutter metal up the roof to a point higher than the outer edge of the gutter.

D. Mortar, plastic cement, and sealant:

1. Provide Type M cement mortar complying with ASTM C770 at all ridges and hips to completely seal the area under the ridge and hip tiles.

2. At gable, hip, ridges, and other conditions, provide a non-running, heavy body, plastic cement composed of asphalt and other mineral ingredients 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 SSC-153 Type 1.

4. Fasteners:

a. Fasteners shall comply with IRC section R905.3.6 and IRC 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 fastening shall not be more than 5/16 inches 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.

b. In areas designated by the building official as being subject to high winds that exceed 80 mph, or where roof pitch exceeds 40 ft (12m) above grade, attach all tiles in strict accordance with Chapter 15 of ISC. Table 15-2. Footnote, or as required by local governmental agencies having jurisdiction.

c. Nail the heads of all tiles;

b. Nail rake tiles with two nails;

c. Set the noses of all ridge, hip, and rake tiles in a beaded approved manner.

d. Make necessary corrections before proceeding to next row.

3. On slopes over 24:12, securely fasten the nose end of all tiles.

3. EXECUTION

3.1. SURFACE CONDITIONS:

A. 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.

3.2. INSTALLATION GENERAL:

A. Membrane:

1. Verify that deck surfaces are clean and dry prior to installation of membrane.

2. Remove all foreign particles from substrates to assure proper seating and to prevent water damage.

3. Install the specified membrane in strict accordance with pertinent requirements of governmental agencies having jurisdiction.

B. On vertical applications, and on extremely steep pitches where wind currents may cause lift, the burl of each tile in a bed of the tile to be a bead of the tile and to be assured properly seated and sealed. Use plastic cement and sealant carefully, and avoid smearing the exposed tile surface.

C. Chalk lines:

1. Chalk horizontal and vertical guide lines on the membrane to assure water tightness and proper appearance.

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

3. Do not exceed an exposure length 1/8" (3 mm) beyond the average.

3.3. INSTALLING ORIENTAL STYLE ROOFING TILES:

1. Wood Strips:

a. Install the specified eave strip full length of all eaves.

b. Install the specified batten strips horizontally at 9" (229mm) centers on the first row and 9 1/2" (242 mm) centers for all rows thereafter.

2. Install the tile in rows from left or right, beginning at the lowest portion of the roof.

a. Start at the lower left corner with gable corner and eave tile.

b. Install each tile successively, firmly engaging the tile laps with the battens, and fastening each tile with one specified fastener.

3. Length of exposure on field tile shall not exceed 9 1/2" (242 mm) on centers, and width exposure on field tiles shall not exceed 10 1/2" (267 mm) on centers.

4. Install ridge, hip and other accessory tiles in accordance with pertinent requirements of governmental agencies having jurisdiction.

5. Install cement mortar Type M complying with ASTM C270 at all ridges and hips to completely seal the area under ridge and hip tiles.

6. Install a thin coat of rich cement mortar (1 part Type I portland cement complying with ASTM C150 to 3 parts sand complying with ASTM C144) along exposed edges of ridge and hip tiles.

7. Completely and neatly fill and point up all voids.

3. To avoid color patterning, checker boarding, spotting, and star stepping:

a. After the installation of each 80 roof 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.

3.4. 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. Roof 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 and appearance variations, 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.