
M.C.A. Superior Clay Roof Tile

This Guide Specification is intended to be used in preparation of specifications for a particular project, or as the basis for an office master specification. In either case, the Guide Specification must be edited to fit the condition of use. Pay particular attention to deletion of inapplicable portions.

Section 07320

Notes to Specifier

ORIENTAL STYLE ROOFING TILE

PART 1 - GENERAL

1.1 SUMMARY

A. Provide roofing tile where indicated on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division One of these Specifications.

1.2 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. In accordance with the approved submittal schedule, submit a material list of items proposed to be provided under this Section, proving compliance with the specified requirements.

1.3 QUALITY ASSURANCE

A. 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 in this Section.

B. For conditions not covered in this Section, comply with the pertinent "Installation Manual" published by the Tile Roofing Institute.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Section 01620.

This Guide is written to cover routine installation of the indicated roofing tiles. However, local codes and special local requirements in the area of your construction may vary from the practices described. It is essential that you verify local precedents and local materials if you wish to keep construction cost in line.

Throughout Part 1 of this Section, use the standard phrasing and references used elsewhere in your specs.

45 calendar days may be too long a delay in fast track work, but receipt of this data helps assure you get the specified materials on the job.

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PART 2 - PRODUCTS

2.1 ROOFING TILE

A. Where indicated on the Drawings, provide Oriental Style roofing tile manufactured by M.C.A. Superior Clay Roof Tile located at 1985 Sampson Ave., Corona, CA 92879, phone (800) 736-6221, fax (951) 736-6052, in color number "C-_____" and with the appropriate number of the following matching accessory tiles to complete the installation:

1. Field Tiles - MO01;
2. Eave Tiles - MO02;
3. Gable Tiles - MO03 (right and left as required);
4. Gable Corners - MO04 (right and 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 (optional) - MO13;

B. The manufacturer may also be reached at its website: www.mca-tile.com, and by e-mail at sales@mca-tile.com.

C. Comply with pertinent provisions of ASTM C1167, Grade I, and ICC Research Number ESR-2144, and with the Tile Roof Institute Manual.

Notes to Specifier

Select color from the current catalog and state here by name and number

Verify membrane design used as standard practice in the area of your construction; edit as required.

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 two layers of 30lb (14kg) 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 or code approved alternate.
2. At roof pitches less than 4:12 and steeper, provide a minimum of two layers of membrane complying with ASTM D226, Type II, or one layer of membrane complying with ASTM D4869, Type IV or upgrade material placed with minimum 2" (51mm) headlap and 6" (152mm) sidelap.
3. Provide in strict accordance with pertinent requirements of governmental and/or other agencies having jurisdiction.

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PART 2 - PRODUCTS continued

B. Fasteners:

1. Fasteners shall comply with IRC section R905.3.6 and IBC section 1507.3.6 and UBC Section 1507.3.6, Corrosion resistant meeting ASTM A641 Class 1 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 inches and 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.

2. In areas designated by the building official as being subject to winds that exceed 80 mph, or where roof height exceeds 40 feet (12 m) 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 governmental agencies having jurisdiction.

- a. Nail the heads of all ties;
- b. Nail rake tiles with two nails;
- c. Set noses of all ridge, hip, and rake tiles in a bead of mastic approved by the Architect.

7. On slopes over 24:12, securely fasten the noses of all tiles.

C. Wood Strips and nailers:

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 tiles.

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.

Notes to Specifier

Verify fastening requirements in the area of your construction, and edit as required. Delete non-applicable requirements.

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

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PART 2 - PRODUCTS continued

D. Flashing:

1. Flash at roof valleys in strict accordance with Chapter 15 of UBC, or 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 11" (279 mm) away from the centerline of the valley each way;
 - b. Provide splash diverter rib not less than 1" (25mm) 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) (.48mm thick) corrosion resistant metal; at sides of dormers, chimneys, and other walls, extend flashing 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 side 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 0.19" (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.

5. Make all counterflashing plugged, pointed and secure.

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

E. Mortar, plastic cement, and sealant:

1. 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.

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.

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PART 2 - PRODUCTS continued

3. When using sealant in lieu of the plastic cement, provide a silicone sealant complying with ASTM D1002 or ASTM E42.

Notes to Specifier

Delete Article 2.3 if not needed.

2.4 OTHER MATERIALS

1. 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.

PART 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.

This Paragraph covers other items such as nails, etc.

3.2 INSTALLATION

A. Membrane:

1. Verify that deck surfaces are clean and dry prior to installation of membrane.
2. Remove all foreign particles from substrate to assure proper seating and 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, 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.

Delete Paragraph B if not needed, and revise the Paragraph numbers that come after it.

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3.2 INSTALLATION continued

C. Chalk Lines:

1. Chalk horizontal and vertical guide lines on the membrane to assure watertightness and proper appearance.
2. Space the chalk lines by measuring the delivered tiles for average length and width exposures.
3. Do not exceed and exposure length 1/8" (3 mm) beyond the average.

D. 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" (228mm) centers on the first two rows and 9-1/2" (242mm) centers for all rows thereafter.

2. Install the tile in rows from left to right, beginning at lower left corner 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 lugs with the battens, and fastening each tile with one specified fastener.
- c. Length of exposure on field tile shall not exceed 9 1/2" (242mm) on centers, and width exposure on field tiles shall not exceed 10 1/2" (267 mm) on centers.
- d. Install Ridge and hip, in accordance with pertinent requirements of the governmental agencies having jurisdiction.

(1) Provide cement mortar Type M complying with ASTM C270 at all ridges and hips to completely seal the area under ridge and hip tiles;

(2) Install a thin coat of rich cement mortar (one part Type I portland cement complying with ASTM C150 to three parts sand complying with ASTM C144) along exposed edges of all ridge and hip tiles;

(3) Completely and neatly fill and point up all voids.

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3.2 INSTALLATION continued

3. To avoid color patterning, checkerboarding, spotting, and stairstepping:
 - a. After the installation of each 80 roofing tiles, make a visual inspection from the ground level and at a distance from the building of about 40 feet (12 m);
 - 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.

3.3 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.

END OF SECTION