

GUIDE SPECIFICATION

Manufacturer:
DECRA Roofing Systems
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SECTION 07314 [07 13 14]

STONE COATED METAL ROOF TILE

This guide specification has been prepared by DECRA Roofing Systems, in printed and electronic media, as an aid to specifiers in preparing written construction documents for stone coated metal Tile.

Edit entire master to suit project requirements. **Modify or add items as necessary. Delete items which are not applicable.** Words and sentences within brackets [_____] **reflect a choice to be made** regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Editor notes to guide the specifier are included between lines of asterisks to assist in choices to be made. **Remove these notes before final printing of specification.**

This guide specification is written around the Construction Specifications Institute (CSI), Section Format standards references to section names and numbers are based on **MasterFormat 95 [2011 update]**.

For specification assistance on specific product applications, please contact our local product representatives throughout North America at 800-795-0776.

DECRA Roofing Systems reserves the right to modify these guide specifications at any time. Updates to this guide specification will be posted to the manufacturer's web site and/or in printed matter as they occur. DECRA Roofing Systems makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Documents: Provisions established within General and Supplementary Conditions of the Contract, Division 1 – General Requirements, and the Drawings are collectively applicable to this Section.
- B. Section Includes: Formed metal roofing panels with colored stone chip finish.
- C. Battens and nailers.
- D. Associated metal flashings.

 Edit the Related Sections paragraph below to suit project requirements; delete sections that will not be used, or add sections as required.

- E. Related Sections:
 - 1. Division 6 Section "Rough Carpentry" for framing and sheathing.
 - 2. Division 7 Section "Sheet Metal Flashing and Trim" for metal flashing, gutters, and downspouts.
 - 3. Division 7 Section "Roof Accessories" for roof ventilators.
 - 4. Division 7 Section "Joint Sealants" for field-applied sealants.
 - 5. Division 9 Section "Painting" for painting of roof accessories.
- F. Alternates.

 If work of this section will affect alternate bids, retain the following subparagraph.

- 1. Refer to Section 01230 [01 23 00] for alternatives involving work of this Section.

1.2 SUBMITTALS

 Include submittal requirements below, which are consistent with the scope of the project and extent of work of this section - only request submittals, which are necessary for review of design intent.

Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended variations to drawings.

Insert the appropriate reference to the Division 1 section.

- A. Submit under provisions of Section 01300 [____] [01 30 00].
- B. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, finishes, fasteners, accessories, and manufacturers written installation instructions.
- C. Shop Drawings: Include roof plans and elevations; sections at hips, ridges, gables, valleys, and eaves; and details of components, accessories, and attachments to other work.
- D. Samples for Initial Selection: Manufacturer's color charts and samples consisting of units or sections of units showing the full range of colors, textures, and patterns available for each type DECRA Tile indicated.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Conform to applicable building code for roof assembly fire hazard requirements.
 - 2. Conform to building code for minimum wind uplift resistance.

1.4 REFERENCES

- A. Fire-Test-Response Characteristics: Provide DECRA Tile with fire-test-response characteristics indicated, as determined per test method ASTM E108 – Test For Fire Resistance of Roof Covering Materials, for application and slopes indicated.
 - 1. Fire-Test Exposure: Class A.
- B. ASTM A792/A792M: Sheet Steel, Aluminum-Zinc Alloy Coated by the Hot Dip Process, Structural (physical) Quality.
- C. UL 1897 and UL 580: Wind Uplift Resistance of Roof Assemblies.
- D. ASTM C920: Specification for Elastomeric Joint Sealants.
- E. Impact Resistance: UL 2218, Class 4.
- F. Appraisal Certificates:
 - 1. International Code Council (ICC), Whittier California, Report Nos. ESR-1753 (IBC 2003) Installed on battens; ESR-2901 (IBC 2006) Installed on battens; ER-4361 (legacy).
 - 2. Underwriters Laboratories, Inc., Northbrook, Illinois, USA File No. R14710.
 - 3. Canadian Construction Materials Center, Ottawa, Ontario, CCMC#10241-R.

Retain the following paragraph if the specific project requires Miami-Dade, or Florida Building Code or TDI ratings. Otherwise, delete the following paragraph.

- G. [Texas Department of Insurance Report RC-281 – Wind Resistance.]
- H. [Dade County, Florida Acceptance No. 11-0601.11.]
- I. [Florida Approval No. 9759-R3 Installed on battens.]

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle roofing materials to ensure dryness. Store in a dry, well-ventilated, weather tight place. Protect from corrosion, staining and traffic and wind damage. Store rolls of felt and other sheet materials on end on pallets or another raised surface.

1.6 WARRANTY

- A. Manufacturing Warranty: Written, transferable, limited warranty provided by DECRA Roofing Systems, covering manufacturing defects/excessive granule loss. Refer to warranty for specifics.
 - 1. Warranty Period: 50 years from date of Substantial Completion.
 - 2. Wind Warranty: 120 mph winds, full warranty period.
 - 3. Hail Penetration: full warranty period.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. DECRA Roofing Systems, Inc., 1230 Railroad Street, Corona, CA 92882 (951-272-8180), (951-272-4476 FAX); www.decra.com.

2.2 MATERIALS

- A. Metal Tile: DECRA Tile interlocking panels resembling traditional roofing tile.
 - 1. Material: Rolled and pressure formed, Aluminum-Zinc Alloy Coated Steel with seven individual tile pans.
 - 2. Finish: Ceramic coated colored stone chip finish.
 - 3. Thickness: 0.0165 inches (.455 mm).
 - 4. Steel: Grade 37 (Grade 255).
 - 5. Size: 16-1/2" wide by 52" long (419 by 1321 mm).
 - 6. Exposure: 14-1/2" wide by 50" long (368 by 1270 mm).
 - 7. Weight: 150 pounds per square.

Make color selection from the choices below and delete the colors not required for the project.

- 8. Color: [Charcoal] [Chestnut] [Garnet] [Granite Grey] [Sea Green] [Shadowood] [Terracotta] [Weathered Timber].

Do NOT use LEAD or COPPER with this aluminum-zinc alloy coated steel roofing system. Do NOT use any treated wood products that may contain COPPER – i.e. pressure treated or fire retardant. Include [] if desired or needed.

B. Flashing:

- 1. Valley: Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm), ASTM A792/A792M.
- 2. [Side Flashing: DECRA Roofing Systems, Inc., DECRA Side Flashing, Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Pressure formed to flash vertical roof surface transitions. Finish: Ceramic coated, colored stone chip finish to match roofing material.]
- 3. Roof-to-Wall Flashing: Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Pressure formed to flash vertical roof surface transitions. Finish: Match color to exterior finish.
- 4. Pipe Jack Flashing: 0.0165 inches (.455 mm) galvanized or Aluminum-Zinc Alloy Coated Steel, clean, prime and paint to match roof material.
- 5. Underpan – DECRA Tile: Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Pressure formed to counter flash roof penetrations matching tile material profile.

Include the following for re-roofing applications. Select the appropriate fascia metal for the project type.

- 6. [[3.5"] or [5"] Fascia Metal: DECRA Roofing Systems, Inc., DECRA Fascia Metal, Aluminum-Zinc Alloy Coated Steel sheet, [3.5 inches] or [5 inches] (89 or 127 mm), 0.0165 inches (.455 mm), pressure formed angle installed at first batten to cover build up. Finish: Ceramic coated, colored stone chip finish to match roofing material.]
- 6. [[3.5"] or [5"] Fascia Metal: Aluminum-Zinc Alloy Coated Steel sheet, [3.5 inches] or [5 inches] (89 or 127 mm), 0.0165 inches (.455 mm). Pressure formed angle installed at first batten to cover build up. Finish: Paint to match exterior finish.]

Choose fasteners in accordance with code requirements; choose the same fasteners for panels (2.3, F).

C. Hip & Ridge: Tile Hip & Ridge, barrel-shaped, covers for fascias, drips, rakes and other trim required, matching tile material, color, and finish.

- 1. Hips / Ridges and Rakes: DECRA Roofing Systems, Inc., Tile Hip & Ridge, Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Pressure formed to match roofing material, color, and finish to be applied along hips, ridges and rakes.
- 2. End Cap - DECRA Tile End Cap - Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Circular cap to match roofing material, color, and finish to be applied at open end of hip & ridge at eaves.
- 3. [Screws: Minimum No. 9 hex (1/4" diameter) by 1-1/2" long (38.1 mm) minimum, corrosion resistant, black or color coordinated to match the panels.]
- 2. [Nails: Full, flat head, 8d box nails of sufficient length to penetrate substrate 1/2 inch (12.7 mm) minimum, finish color black.]

2.3 ACCESSORIES

Select the appropriate battens for the project type. Do NOT use any treated wood products that may contain COPPER – i.e. pressure treated or fire retardant.

- A. [Timber Battens: [Nominal 1 by 4 inch standard grade counter battens, as needed, for re-roof applications.] [Nominal 2 by 2 inch standard grade.]]
 - 1. Fasteners: Nails: Box: Minimum 16d smooth, 3-1/4 inch (83 mm) long.
- A. [Steel Battens: Minimum 20 Gauge, ASTM A 653 galvanized steel, hat channels].
 - 2. Fasteners: Screws: No. 8, 2 inch (51 mm) long, corrosion resistant wood screw.
- B. Sheet Metal Materials: Aluminum-Zinc Alloy Coated Steel sheet: ASTM A 792/A 792M, Class AZ50 (AZ150) coating designation; minimum Grade 37 (Grade 255).

Verify requirements for ice dam protection with local building code and include [] if required/desired.

- C. Felt Underlayment: ASTM D 226, Type I, No. 15 or ASTM D 226, Type II, No. 30, non-perforated, asphalt-saturated organic felt.
- D. [Perimeter Underlayment: ASTM D 1970; self-adhering, polymer-modified, bituminous sheet underlayment; 40 mils (1 mm) thick. Provide primer when recommended by underlayment manufacturer.]
- E. Sealant: One-part elastomeric polyurethane, sealant as recommended in writing by panel manufacturer. Where sealant will be exposed, provide in color to match panels.
 - 1. Standard: ASTM C920-86.

Choose fasteners in accordance with code requirements; should be the same fasteners chosen for hip & ridge under 2.2, C.

- F. Fasteners: Corrosion resistant screws or nails.
 - 1. [Screws: Minimum No. 9 hex (1/4" diameter) by 1-1/2" long (38.1 mm) minimum, black or color coordinated to match the panels.]
 - 1. [Nails: Full, flat head, 8d box nails, of sufficient length to penetrate substrate 1/2 inch (12.7 mm) minimum, finish color black.]

PART 3 - EXECUTION

Include the information in parenthesis [] for re-roofing applications, and as required by code, delete if not required.

3.1 EXAMINATION

- A. Examine substrate and conditions for compliance with requirements for maximum moisture content, soundness of framing, and other conditions affecting performance of DECRA metal roofing. [Damaged, rotted or loose roofing materials shall be removed and the substrate corrected for re-roofing applications]. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of any projections and substances detrimental to metal panel roofing. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with roofing nails.
- B. Inspect and verify roof framing spacing and installation is straight, true and ready for installation of battens and DECRA roof panels.
- C. Coordinate installation of metal panels with flashing and other adjoining work to ensure proper sequencing. Do not install roofing until vent stacks and other penetrations through roofing have been installed, are securely fastened and flashing is in place.
- D. Inspect and verify exterior stucco and EIFS wall enclosures are completed.

3.3 INSTALLATION

- A. General: Comply with manufacturer's written instructions for products and applications indicated, unless more stringent requirements apply.
- B. Battens: [Install 1 by 4 inch counter battens vertically over the roof rafters/trusses, on **24 inch (610 mm)** centers (maximum). Stagger counter batten ends.] [Install 2 by 2 inch battens perpendicular to roof rafters/trusses at **14-1/2 inch (368 mm)** centers for DECRA Tile. Stagger batten ends.] [Install minimum 20 Gauge, ASTM A 653 galvanized steel, hat channels.]
 - 1. [Fasten counter battens and battens with 16d common nails in accordance with manufacturer's written instructions.]
 - 1. [Fasten hat channels with No. 8, **2 inch (51 mm)** long, corrosion-resistant wood screws in accordance with manufacturer's written instructions.]
- C. Valleys: Install in accordance with manufacturer's instructions with a minimum **6 inch (152 mm)** overlap in direction of flow.
- D. Flashing: Install as indicated on approved submittals and in accordance with manufacturer's written instructions.
- E. Tile Panels: Install DECRA Tile, accessories, flashing, and hip & ridge level and plumb. Use fasteners per above specifications.
 - 1. Install each DECRA Tile Panel with alternating courses staggered in accordance with manufacturer's instructions.

Specify the appropriate number of fasteners per code requirements; 4 is standard installation. Miami-Dade County may require additional fasteners. www.decra.com.

- 2. Fasten each panel with minimum [4] fasteners horizontally along the nosing of each panel; two at overlaps, and two at other intermediate points. Review manufacturer's instructions for fastener placement.
- F. Cut DECRA panels into each side of valleys in accordance with the manufacturer's instructions straight and true to the line of the valley.
- G. Hip & Ridge: Install Tile Hip & Ridge along hips, ridges and rakes as indicated on approved submittals and in accordance with manufacturer's written instructions. Bend and fold exposed ends of hips ridges and neatly, cap with an end cap or a piece of similar material.

3.4 CLEANING AND PROTECTION

- A. Damaged Units: Replace panels and other components of the work that have been dented damaged or have deteriorated beyond successful repair by finish touchup with acrylic coating and stone chip granules.
- B. Cleaning: After completing installation, remove any debris from the roof.
- C. Foot Traffic: Directly over 2 x 2 battens to prevent denting of panels. Walk in tile pans.

END OF SECTION 07314 [07 31 14]