

GUIDE SPECIFICATION

Manufacturer:
DECRA Roofing Systems
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SECTION 07313 [07 31 13]

STONE COATED METAL ROOF SHINGLE

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 Shingle..

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. 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.

- D. 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.
- E. 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 Shingle 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 Shingle 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 No. ESR 1483.
 - 2. Underwriters Laboratories, Inc., Northbrook, Illinois, USA File No. R14710.
 - 3. Canadian Construction Materials Center, Ottawa, Ontario, CCMC#13085-R.
- G. [Texas Department of Insurance Report RC-280 – Wind Resistance].

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 Shingle: DECRA Shingle three course formed interlocking panels resembling dimensional roofing shingles.
 - 1. Material: Rolled and pressure formed, Aluminum-Zinc Alloy Coated Steel with three vertical ribs forming three flat steps, each of which shall have raised and lowered pan sections.
 - 2. Finish: Ceramic coated colored stone chip finish.
 - 3. Thickness: 0.0165 inches (.455 mm).
 - 4. Steel: Grade 37 (Grade 255).
 - 5. Size: 21" wide by 52" long (533 by 1321 mm).
 - 6. Exposure: 19-3/4" wide by 49" long (368 by 1270 mm).
 - 7. Weight: 125 pounds per square.

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

8. Color: [Canyon Brown] [Fawn Grey] [Midnight Eclipse] [Vintage Slate] [Woodland Green].

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.

DECRA Shingle Valley must be used. Include [] if desired or needed.

B. Flashing:

1. [Valley: DECRA Roofing Systems, Inc., Shingle Valley and Cap, Aluminum-Zinc Alloy coated Steel sheet 0.0165 inches (.455 mm). Pressure formed into a valley with a stone coated valley cap. Finish: Match upper exposed stone coated surface of the valley cap to the shingle material/color.]
2. Fascia Metal: DECRA Roofing Systems, Inc., Shingle Starter Clip w/ Drip Edge, Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Pressure formed to fit along the leading edge of roof panels at eave/fascia.
3. Rake / Gable Channel: DECRA Roofing Systems, Inc., Shingle Rake/Gable Channel, Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Pressure formed to match roofing material to be applied along rakes and gables. Pre-paint to match as needed prior to installing panels.
4. Short Course Clip: DECRA Roofing Systems, Inc., Shingle Short Course Clip, Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm). Pressure formed for use with starting a short course or when Shingle Starter Clip w/ Drip Edge will not conform to existing eave/fascia.
5. Pipe Jack Flashing: 0.0165 inches (.455 mm) galvanized or Aluminum-Zinc Alloy Coated Steel, clean, prime and paint to match roof material.
6. Underpan: DECRA Roofing Systems, Inc., DECRA Shingle/XD® Underpan: Aluminum-Zinc Alloy Coated Steel sheet, 0.0165 inches (.455 mm), pressure formed to counter flash roof penetrations matching Shingle material profile.

C. Hip & Ridge: Shingle Hip & Ridge covers hips and ridges matching shingle material, color, and finish.

1. Hips / Ridges: DECRA Roofing Systems, Inc., DECRA Shingle 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 and ridges.
2. Screws: Minimum No. 9 hex (1/4" diameter) by 1-1/2" long (38.1 mm) minimum, corrosion resistant, color coordinated to match the panels.

2.3 ACCESSORIES

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.

- A. 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.

- B. Felt Underlayment: ASTM D 226, Type I, No.15 or ASTM D 226, Type II, No.30, non-perforated, asphalt-saturated organic felt.
- C. [Perimeter Underlayment: ASTM D 1970; self-adhering, polymer-modified, bituminous sheet underlayment; 40 mils (1 mm) thick. Provide primer when recommended by underlayment manufacturer.]

- D. 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.
- E. Fasteners: 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 where visible.

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 roof deck 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. Coordinate installation of metal shingles with roof deck, 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.
- C. 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. Underlayment: Apply number of plies required by governing code, but at least one ply, with each ply overlapping the ply below at least 6 inches (152 mm) and ends lapped at least 18 inches (457 mm).
 - 1. [Omit felt underlayment at areas of perimeter underlayment. Lap felt underlayment over perimeter underlayment as recommended by manufacturer, but not less than 2 inches (51 mm).]
- C. [Perimeter Underlayment: Apply minimum 24 inches (609 mm) wide layer of perimeter underlayment along entire perimeter of surface to receive metal shingles, including at eaves, ridges, edges, hips, valley, skylights, dormers, and around projections through roof. Extend perimeter underlayment a minimum of 36 inches (914 mm) inside exterior wall line at edges.]
- D. Valleys: Install in accordance with manufacturer's instructions with a minimum 6 inch (152 mm) overlap in direction of flow.
- E. Flashing: Install as indicated on approved submittals and in accordance with manufacturer's written instructions.
- F. Shingle Panels: Install DECRA Shingle, accessories, flashing, and hip & ridge level and plumb. Use fasteners per above specifications.
 - 1. Using the recommended offset, the first course of panels lock into the Shingle Starter Clip w/ Drip Edge.
 - 2. The second course of panels start at the rake edge, valley or hip with a panel that is 28 inches (711 mm) in length, panel exposure is 25 inches (635 mm), measured from the left side of the panel.
 - 3. Position the panel into the top clip of the panels on the course below. The center of each field panel will be placed directly above the overlap of the panels on the previous course.
 - 4. Make sure the top clips of each panel are flush. The maximum allowable gap should be 3/16 inches (76 mm).
 - 5. Once the panel is in position, firmly push (by hand or foot) on the panel in the area that overlaps the joint of the two panels below. This will help position the panel for fastener placement.

6. After positioning the panel, firmly push (by hand or foot) on the left side of the panel until it is locked firmly into the clip-lock of the panel on the course below. Install a fastener in the upper left corner straight down through the panel.
7. Firmly push (by hand or foot) on the right side of the panel and make sure it is locked into the previously installed panel. Install a fastener in the upper right portion of the panel. Placing this fastener at a slight upward angle (45°) will help draw the shingle panel into the proper locking position. Complete the installation with 2 additional fasteners straight down into the panel.

 Specify the appropriate number of fasteners per code requirements; 4 is standard installation.

8. Fasten each panel with minimum [4] fasteners along top edge of panel.
 9. Cut and slot DECRA panels that will terminate at the Shingle Rake/Gable Channel or at the Valley in accordance with the manufacturer's instructions.
- G. Hip & Ridge: Install Shingle Hip & Ridge along hips, ridges and rakes as indicated on approved submittals and in accordance with manufacturers 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: Avoid walking on side laps.

END OF SECTION 07313 [07 31 13]