

SECTION 07 31 29.13
WOOD SHINGLES

SPEC WRITER NOTE:

1. Use this section only for NCA projects.
2. This guide specification does not include requirements for deck treatment for re-roofing work (with either old roofing to remain in place or old roofing to be removed).

PART 1 - GENERAL

1.1 DESCRIPTION

This section specifies fire retardant treated wood cedar shingles.

1.2 RELATED WORK

- A. Color of shingles: Section 09 06 00, SCHEDULE FOR FINISHES.
- B. Counter-flashing and flashing of roof projections or penetrations: Section 07 60 00, FLASHING AND SHEET METAL.

1.3 DESIGN CRITERIA

- A. Assure wall and roof surfaces are sound, reasonably smooth and free from defects which would interfere with shingle installation.
- B. Assume vent pipes and other projections through roof are in place and roof flashing is installed before laying shingles.

1.4 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Samples:
Shingles or shingle panel
- C. Manufacturer's Literature and Data:
Shingles
Installation instructions

1.5 DELIVERY AND STORAGE

- A. Deliver materials in manufacturer's unopened bundles or containers with the manufacturer's brand and name clearly marked thereon. Shingle bundle wrapping shall bear the label of Underwriters Laboratories, Inc.
- B. Store shingles in accordance with manufacturer's printed instructions. Store roll goods on end in an upright position. Keep materials dry, covered completely and protected from the weather.

1.6 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. American Society for Testing and Materials (ASTM):
- A167-17.....Stainless and Heat-resisting Chromium-Nickel
Steel plate, Sheet and Strip
- A480/A480M-22a.....Flat-Rolled Stainless-Steel Plate, Sheet and
Strip
- D226/D226M-17.....Asphalt-Saturated Organic Felt Used in Roofing
and Waterproofing
- F1667/F1667M-21aDriver Fasteners: Nails, Spikes and Staples

PART 2 - PRODUCTS

SPEC WRITER NOTE:

1. Check with Fire and Safety Division for use of Option C or Class C shingle.
2. Make material requirements agree with applicable requirements specified in the referenced Applicable Publications. Update and specify only that which applies to the project.

2.1 SHINGLES

- A. Class C: Fire retardant treated cedar square butt, smooth shingles, maximum exposure of 175 mm (seven inches,) 460 mm (18 inches) long in random widths, but not less than 100 mm (4 inches) wide. Class C shingles shall weigh approximately 9.3 Kg/m² (185 lbs/100 sft).
- B. Option C: Fire retardant treated cedar, smooth, square butt shingles, random width for a maximum exposure of 175 mm (seven inches), laminated to an 8 mm (5/16-inch) exterior glue plywood panel with waterproof adhesive. Panel shingles shall weigh not less than 10 Kg/m² (200 lbs/100 sft). Panels shall be approximately 375 mm (15 inches) high by 2440 mm (96 inches) long with even butt line.

2.2 NAILS

- A. Roofing Nails: ASTM F1667: Type I, Style 20, galvanized steel, smooth shanks, with heads 9.5 mm to 11 mm (3/8-inch to 7/16-inch) diameter. Use nails 19 mm (3/4-inch) long for fastening felt.
- B. Shingle Nails: ASTM F1667, Type I, Style 21, galvanized steel, 6d size.

2.3 STAPLES

ASTM F1667, Type IV, Style 5 zinc coated; flat top, 13 mm (1/2-inch) long legs, 13 mm (1/2-inch) wide for felt.

2.4 ROOFING FELT

ASTM D226, Type II, 13.5 Kg per 9m² (30 pound/100 square feet).

2.5 STAINLESS STEEL

ASTM A480, dead soft temper.

PART 3 - EXECUTION**3.1 LAYING FELT**

- A. Install 13.5 Kg (30 pound) felt underlayment, lapping a minimum of 102 mm (four inches) at ends 50 mm 13 mm (two inches) at head and 305 mm (12 inches) over ridge or around corners. Extend felt 13 mm (1/2-inch) beyond edges of roof.
- B. Staple or nail felt 127 mm (five inches) on centers along laps. Lay felt under shingles over entire roof and wall area.

3.2 METAL DRIP EDGES

- A. At eaves and rakes, install metal drip edges made of stainless steel 0.38 mm (0.015-inch) thick, 2400 mm (8 foot) lengths maximum. Apply the metal drip edge directly over the underlayment along the eaves and rakes. Lap joints 50 mm (two inches).
- B. Secure metal drip edges with compatible nails spaced not more than 254 mm (10 inches) on center along the inner edges.

3.3 LAYING SHINGLES

- A. At eaves, install starter course of roof shingles with overhang. Both courses shall overhang eaves edge of roof 13 mm (1/2-inch). At rake, overhang edge of roof 6 mm (1/4-inch.) Lay shingles with maximum exposure of 178 mm (seven inches).
- B. Nail panels or shingles in accordance with manufacturer's published directions.
- C. Install panel shingles in accordance with manufacturer's published directions.
- D. Corners, interior and exterior, shall be woven type.
- E. Valleys shall be closed type.

3.4 FLASHINGS

- A. Provide 0.38 mm (0.015-inch) thick stainless-steel flashings at the intersections of roofs, adjoining walls or changes in slope, under ridges, hips, and valleys.

- B. Use shingle type flashing for all slopes at joints with vertical surfaces, vertical leg not less than 203 mm (eight inches) high, horizontal leg not less than 152 mm (six inches) wide; length of shingle plus 50 mm (two inches).
- C. Valley flashing 305 mm (12 inches) wide on each side of valley, shingle type, length of shingles plus 50 mm (2 inches).
- D. Ridge and hip flashing; length of shingle plus two inches, width to extend within 13 mm (1/2-inch) of edge of shingle on each side of hip or ridge, shingle type.
- E. Install shingle type flashing as each course of wood shingles are applied. Extend upper edge of flashing two inches minimum above each course of shingles and the lower edge 13 mm (1/2-inch) above the butt of the shingle forming the neat course and the edges on hips and ridge shingles.
- F. Give careful attention to the installation of all flashings.

3.5 HIPS AND RIDGES

- A. Install shingles lengthwise down center to provide equal exposure on each side of hip or ridge alternating butt laps along longitudinal edges for woven joints.
- B. Beginning at one end of ridge, apply shingles with maximum 127 mm (five inch) exposure.
- C. At hips, start at bottom, apply shingles with maximum of 178 mm (seven inch) exposure.
- D. Secure each shingle with two nails on each side.
- E. All shingles shall be same width, but not less than 152 (six inches).

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