



CRAFTING QUALITY HOME PRODUCTS™

## *Guide Specification for Kassel/Wood*

This guide specification has been prepared by Kassel & Irons Ltd, in printed and electronic media, as an aid to specifiers in preparing written construction documents for metal roof shingles.

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.

For Specification assistance on specific product applications, please contact our local product representatives throughout North America at [www.kasselandirons.com](http://www.kasselandirons.com).

Kassel & Irons 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. Kassel & Irons makes no expressed or implied warranties regarding content, errors, or omissions in the information present.

## PART 1: General

### I.1 SUMMARY

- A. This section includes the following:  
Formed metal roofing panels with a Kynar® finish.
- B. Associated metal flashings.
- C. 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.

### I.2 SUBMITTALS

- A. **Product Data:** Include construction details, material descriptions, dimensions of KasselWood Steel Roof Shingle, individual components and profiles, finishes, fasteners, accessories and manufacturers written installation instructions.
- B. **Shop Drawings:** Include roof plans and elevations; sections at hips, gables, ridges, valleys, and eaves; and details of components, accessories, and attachments to other work.
- C. **Samples for Initial Selection:** Manufacturer's color charts and sample boards with patterns available for each type of KasselWood Shingle indicated.

### I.3 QUALITY ASSURANCE

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

### I.4 REFERENCES

- A. Fire-Test-Response Characteristics: Provide KasselWood Shingle with fire-test-response characteristics indicated, as determined per test method ASTM E 108. Test for fire resistance of roof covering, materials, for application and slopes indicated.
  1. Fire-Test Exposure: Class A
- B. ASTM A653: Sheet Steel, Zinc, Alloy Coated Steel 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. Florida Building Code Report number FL 5207.1.

### I.5 DELIVERY, STORAGE, & HANDLING

- A. Store and handle roofing materials to ensure dryness. Store in a dry, well ventilated place.

## 1.6 WARRANTY

- A. Furnish manufacturer's standard limited transferable warranty stating:
1. The product will be free of manufacturing defects in material and workmanship for a period of fifty years from the Date of Installation.
  2. The product will resist perforation from hail stones measuring up to 2-1/2 inch diameter for a period of fifty years from the Date of Installation.
  3. The product will resist wind uplift in velocities up to 120 miles per hour for a period of fifty years from the Date of Installation.
  4. The product will not support combustion for a period of fifty years from the Date of Installation.
- B. Furnish manufacturer's standard limited transferable warranty stating architectural fluorocarbon finish will be:
1. Free of fading or color change in excess of 5 Hunter AE units as measured per ASTM D2244-02 for a period of 30 years.
  2. Will not chalk in excess of numerical rating of 8 when measured in accordance with standard procedures specified for in ASTM D 4214.98 method A for a period of 30 years.
  3. Will be free from manufacturing defects for a period of 30 years.
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## PART 2: Products

### 2.1 MANUFACTURER

- A. Products:
1. KasselWood Steel Shingle:
    - a. Kassel & Irons Ltd.  
1310 Papin Street  
St Louis, MO 63103  
(314) 802-5800 PHONE  
(314) 802-5805 FAX

### 2.2 MATERIALS

- A. **Metal Shingles:** KasselWood Shingle formed panels interlocking on all four sides resembling dimensional roofing shingles.
1. **Material:** Pressure formed, 29 Gauges, ASTM 653 Galvanized Steel within individual shake profiles, raised and delineated with wood grain forming a panel system interlocking on all four sides.
  2. **Finish:** Kynar 500 Cool Pigment Finish.
  3. **Thickness:** 29 Gauge, .0142 inches.
  4. **Size:** 10.75" by 41.75".
  5. **Exposure:** 8.625" by 40.625".
  6. **Weight:** 85.70 pounds per square.
  7. **Finish:** *Make color selection from the choices below and delete the colors not required for the project. If special color then add as appropriate:* New Cedar, Weathered Cedar and Aged Cedar.
- B. **Valley:** G90 Galvanized, Kynar Coated, 29 Gauge, .0142 inches, formed into a valley. Finish: Match upper exposed prepainted surface of the valley cap to the shingle material.

- C. Roof to Wall Flashing:** Galvanized Coated Steel sheet, 29 Gauge, .0142 inches, pressure formed to flash vertical roof surface transitions. Match upper exposed pre-painted surface of the roof to wall flashing to shingle color.
- D. Underpan:** G90 Galvanized, Kynar coated, 29 Gauge, .0142 inches, pressure formed to counter flash roof penetrations. Match exposed pre-painted surface to shingle color.
- E. Rake/Gable Channel:** G90 Galvanized, Kynar coated, 29 Gauge, .0142 inches, to be applied along rakes and gables. Match upper exposed pre-painted surface of the valley to wall flashing to shingle color.
- F. Hip & Ridge:** G90 Galvanized, Kynar coated, 29 Gauge, .0142 inches, to be applied along hips and ridges. Match hip and ridge pre-painted print finish to shingle color and print finish.
- G. Drip Edge Anchor Strip Assembly:** (2 pieces) Drip Edge – G90 Galvanized, 29 Gauge, .0142 inches, Kynar Coated; Anchor Strip – G90 Galvanized, 29 Gauge, .0142 inches. Pressure formed to fit along the leading edge of roof panels at eave/fascia. Match exposed pre-painted surface of the drip edge to shingle color.

### 2.3 ACCESSORIES

- A. Sheet Metal Materials:** Galvanized Coated Steel sheet: ASTM A653, G90 Galvanized Kynar 500 Finish.  
*Do not use LEAD or COPPER with this steel roofing system.*
- B. Underlayment:** ASTM D 226, Type I, No. 15 or ASTM D 226, Type II, No. 30, unperforated, asphalt-saturated organic felt, or approved synthetic roofing underlayment ASTM D226.
- C. Fasteners:** Corrosion resistant, minimum No. 10 or 12 hex head, 1-1/2 inch (12.7 mm). Stainless Steel or Galvanized ring shank nails 1-1/4 inch.
- 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.

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## PART 3: Execution

### 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 metal shingle 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 shingle 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, underlayment and other adjoining work to ensure proper sequencing. Do not install roofing until vent stacks and other penetrations through roofing have been installed and are securely fastened.

### 3.3 INSTALLATION

- A. General:** Comply with Kassel & Irons 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 ply below at least 6 inches (150 mm) and ends lapped at least 18 inches (450 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 (50 mm).
- C. Perimeter underlayment:** Apply minimum 24 inch (600 mm) wide layer of perimeter underlayment along entire perimeter of surface to receive metal shingles, including at eaves, ridges, edges, hips, valleys, skylights, dormers, and around projections through roof. Extend perimeter underlayment a minimum of 24 inches (600 mm) inside exterior wall line at edges.
- D. Valleys:** Install in accordance with manufacturer's instructions with a minimum 6 inch overlap in direction of flow. [New valley material shall be installed in re-roofing applications].
- E. Shingles:** Install Kassel & Irons Shingle, accessories, flashing and hip & ridge level and plumb.
1. Using the recommended offset, the first course or panels lock into Anchor Strip w/Drip Edge.
  2. The second course of panels start at the rake edge, with a panel cut 10 inches shorter. This will require a Taper Hem at the start of this panel.
  3. Position of the panel into the top lip 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 lip of each panel is flush.
  5. Once the panel is in position, firmly push 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 on the left side of the panel until it is locked firmly into the interlock of the panel on the course below.
  7. Firmly push on the right side of the panel and make sure it is locked into the previously installed panel.
  8. Fasten each panel with four fasteners minimum along top edge of panel into integrated fastening tabs.
  9. Cut and slot panels that will terminate at the Rake/Gable channel or at the Valley in accordance with the manufacturer's instructions.

### 3.4 CLEANING AND PROTECTION

- A. Damaged Units:** Replace panels and other components of the work that have been dented, damaged.
- B. Cleaning:** After completing installation, remove any debris from the roof.