



RESIDENTIAL METAL ROOF APPLICATION CHECKLIST AND GUIDE

***** WORK MAY NOT BEGIN UNTIL PERMIT IS ISSUED *****

- Completed and signed Building Permit application with estimated cost of construction.
- Verify roof pitch is acceptable for metal roof panels
- Metal roofing materials specifications must be submitted with Building Permit application. Please see attached for Building Code requirements.
- Approved installation instructions.
- Application Fee - To be determined

(Please see Permit Fee Schedule on back of Building Permit Application)

Metal Roof Panel Reference Guide

1. Determine the roof slope and verify the metal panel is approved by the manufacturer for this Installation.
2. Verify metal meets metal covering and minimum corrosion resistance standards as per Table R905.10.3(1) and R905.10.3(2) of the 2015 Michigan Residential Building Code.
3. Review metal roofing panel installation instructions to assure that your installation method is approved by the manufacturer.

When installing metal roof panels, you may either:

1. Remove existing roof covering down to decking.
 - a. Determine that the decking materials are acceptable and appropriate fasteners are being used.
2. New roof covering may be installed in accordance with manufacturer's approved installation Instructions.
 - a. Approved (definition): Acceptable to the Building Official.

To complete a roof re-cover (inspector will verify existing roof covering):

1. There may only be one layer of existing roof covering.
 - A. Existing shingles must meet the following condition(s):
 - a. Shall not be water soaked or deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing as determined by the Code Official.
2. Underlayment must be installed as per Manufacturer's installation instructions.*
3. If spaced supports are used as per Manufacturer's approved installation instructions, they must be securely fastened to trusses or rafters.
4. Must meet 2015 Michigan Residential Code requirements.

* Recommendation: Install additional insulation, such as vapor barrier, over spaced supports to lessen the amount of condensation that metal panels may create.

When Permit is Ready	<ul style="list-style-type: none"> • Once the Building Permit application has been processed and the Building Permit has been issued, the <i>Permit Applicant</i> will be notified that the Building Permit has been approved and is ready for payment. • Permits will not be issued until fees are collected. • Permit fees may be paid by check or cash. • Permits that have no activity within 6 months of the issuance date may be canceled.
Inspections	<p>Building Permits for Roofing require <i>Decking, Underlayment and Final Inspections</i>.</p> <ul style="list-style-type: none"> • Decking*: If any decking is replaced, you must call for a Decking Inspection. • Underlayment: Ice and Water Shield must be installed from the eave to at least 24" inside the exterior wall line of the building. Call us after underlayment is installed and before any shingles are installed. • Final: Once the roofing project has reached completion, please contact our office to schedule a Final Inspection. <p>* You CANNOT deck over existing decking. Only 1 layer of decking is acceptable without approval. The 2015 Michigan residential Code section, R908.2 Structural and Construction loads stated the following: The structural roof components shall be capable of supporting the roof covering system and the material and equipment loads that will be encountered during installation of the roof covering system.</p> <p>Please contact the Community Development Department 48 hours in advance to schedule the inspection.</p>

Table R905.10.03 (1) – Metal Roof Covering Standards

ROOF COVERING TYPE	STANDARD APPLICATION RATE/THICKNESS
Galvanized steel	ASTM A653, G90 Zinc coated
Stainless steel	ASTM A240, 300 Series alloy
Steel	ASTM A924
Lead-coated copper	ASTM B101
Cold-rolled copper	ASTM B370 minimum 16 oz./sq. ft. and 12 oz./sq. ft. high-yield copper for metal-sheet roof-covering systems, 12 oz./sq. ft. for performed metal shingle systems.
Hard lead	2 lb./sq. ft.
Soft lead	3 lb./ sq. ft.
Aluminum	ASTM B209, 0.024 minimum thickness for roll-foamed panels and 0.019-inch minimum thickness for pressformed shingles.
Terne (tin) and terne-coated stainless	Terne coating of 40 lb. per double base box, field painted where applicable in accordance with manufacturer’s installation instructions.
Zinc	0.027 inch minimum thickness; 99.995% electrolytic high-grade zinc with alloy additives of copper (0.08-0.20%), titanium (0.07%-0.12%) and aluminum (0.015%).

For SI: 1 ounce per square foot = 0.305 kg/m².

1 pound per square foot = 4.214 kg/m².

1 inch = 0.454 kg.

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CODE**

Table R905.10.3 (2) – Minimum Corrosion Resistance

55% aluminum-zinc alloy coated steel	ASTM A792 AZ 50
5% aluminum alloy-coated steel	ASTM A875 GF60
Aluminum-coated steel	ASTM A463 T2 65
Galvanized Steel	ASTM A653 G-90
Prepainted steel	ASTM A755 ^a

- a. Paint systems in accordance with ASTM A755 shall be applied over steel products with corrosion-resistant coatings complying with ASTM A792, ASTM A875, ASTM A463, or ASTM A653.

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