

SECTION 07 46 16

PREFORMED METAL SIDING

1. GENERAL

1.1 SUMMARY

- .1 Work of this Section, as shown or specified, shall be in accordance with the requirement of the Contract Documents.

1.2 SECTION INCLUDES

- .1 Requirements for the installation of preformed metal siding/soffit.

1.3 RELATED SECTIONS

- .1 Section 07 21 13: Board Insulation.
- .2 Section 07 28 00: Air Barriers/Vapour Retarders.
- .3 Section 07 62 00: Sheet Metal Flashing and Trim.

1.4 REFERENCES

- .1 CSSBI 20M-2017: Standard for Sheet Steel Cladding for Industrial, Commercial and Institutional Building Applications.
- .2 CSSBI 23M-2015: Standard for Residential Steel Cladding.
- .3 ASTM D 2247: Standard for Humidity Resistance.
- .4 ASTM D 2244: Standard for Color Retention.
- .5 ASTM D 4145: Standard for Flexibility T-Bend.

1.5 QUALITY ASSURANCE

- .1 Installer: Company specializing in performing the work of this section with minimum three (3) years of experience who has completed projects similar in design.
- .2 Manufacturer: Company with minimum 5 years experience specializing in manufacturing the products specified within this section.

1.6 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Shop Drawings: Indicate dimensions, layout, joints, construction details, methods of anchorage.
- .3 Samples: Submit two samples of siding, 150mm x 150mm in size illustrating finish colour, sheen and texture.

1.7 DESIGN REQUIREMENTS

- .1 Design preformed metal siding wall, roof, fascia and soffit panels to provide for thermal movement of component materials caused by ambient temperature swing of 90 degrees C, without causing bulking, failure of joint seals, undue stress on fasteners or other detrimental effects.
- .2 Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.
- .3 Board Insulation: Provide continuity of thermal barrier at building enclosure elements specified in Section 07 21 13.
- .4 Air Barriers/Vapour Retarders: Provide continuity of Air Barriers/Vapour Retarders at building enclosure elements specified in Section 07 28 00.

1.8 DELIVERY, STORAGE AND PROTECTION

- .1 Store prefinished material off ground protected from weather, to prevent twisting, bending or abrasion and to provide ventilation. Slope metal sheets to ensure drainage.
- .2 Prevent contact with materials which may cause discolouration or staining.

1.9 COORDINATION

- .1 Coordinate the Work for installation of vapour retarder and air barrier seals.
- .2 Coordinate the Work with installation of windows and other components or materials tying into Alura Panel.

1.10 WARRANTY

- .1 Furnish Manufacturer's standard limited 25-year warranty stating architectural finish will be:
 - .1 Free from fading or colour change as per ASTM D 2244;
 - .2 Will not chalk as per ASTM D421;
 - .3 Will not peel, crack or chip as per ASTM D 4145, ASTM D 522, ASTM D 3359.

2. PRODUCTS

2.1 SIDING/SOFFT COMPONENTS

- .1 Metal Panel Siding: Alura Panel is 24 gauge steel, ASTM A792 55% Aluminum-Zinc Alloy, Coated PVDF painted, break formed to custom profile, for horizontal or vertical installations:
 - .1 Base Metal Thickness: 0.559mm (24 gauge);
 - .2 Exposed Face: 100mm (4 inch) to 162mm (6.4 inch);
 - .3 Profile: 22mm (.875 inch) deep, preformed interlocking joints;
 - .4 Length: Maximum panel length is 3,657mm (144 inch).

2.2 ACCEPTABLE MANUFACTURER

IMARK Architectural Metals
14440 – 123 Avenue, Edmonton, Alberta, T5L 2Y3
Ph: +1.780.448.8997
Email: info@imarkmetal.com

2.3 FINISHES

- .1 Finish: Prefinished, coil coated. 1.0 mil fluoropolymer (PVDF).
- .2 Colour: Selected from Manufacturers standard range.

2.4 COMPONENTS

- .1 Trim, Closure Pieces, Caps, Flashings, Fascia, Soffits and Infills. Same material, thickness and finish as exterior sheets; break formed to require profiles.
- .2 Z-bars/Sub-girts: 1.2mm thick galvanized steel to ASTM A653M grade 230 with Z275 coating.
- .3 Fasteners: Use Manufacturer recommended fastener, #8x1" wafer screw.

2.5 FABRICATION

- .1 Form sections true to shape, accurate in size, square and free from distortion or defects.
- .2 Form pieces in longest practicable lengths.

QUALITY

- .3 Prefinished break formed metal panel assemblies may exhibit certain behaviors common to all fabricators. Oil canning is a moderate deformation of sheet metal surfaces, typically caused by uneven stresses at fastening points resulting from uneven substrates. Metal forming during panel fabrication may result in fine cracks in finishes (crazing) at outer edges or bends. Take reasonable steps to prevent and mitigate these effects, such as shimming uneven surfaces. Mild “oil canning” or “crazing” are not deficiencies.

3 EXECUTION

3.1 EXAMINATION

- .1 Examine work of other Sections upon which work of this Section depends.
- .2 Report all discrepancies to consultant before beginning work.
- .3 Substrate must be aligned, level and plumb.

3.2 INSTALLATION

- .1 Install siding/soffit in accordance with Manufacturers written instructions.
- .2 Locate joints over supports. Lap panels minimum 50mm (1.96 inch) side laps.
- .3 Provide and install all flashings, closures as detailed on drawings and as per Manufacturers installation instructions to provide a weatherproof installation.

3.3 CLEANING AND TOUCH-UP

- .1 At the completion of the work of this section, remove any excess materials, debris and equipment pertaining to the work of this section and remove from site.
- .2 Remove site cuttings from finish surfaces.
- .3 Touch-up with matching paint any scratched or abraded surfaces of prefinished metal panels to the satisfaction of the Consultant.