SECTION 07 42 03

THERMAL ISOLATION MOUNTING CLIPS FOR EXTERIOR WALL PANEL ASSEMBLIES

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\*\* NOTE TO SPECIFIER \*\* Northern Facades - ISOclip; for exterior wall assemblies.
This section is based on the products of Northern Facades - ISOclip, which is located at:6451 Northwest Dr.Mississauga, ON, Canada L4V 1K2Toll Free Tel: 844-740-2050Tel: 905-740-2050Fax: 905-740-2054Email: [request info (info@isoclips.com )](https://arcat.com/rfi?action=email&company=Northern%252BFacades%252B-%252BISOclip&message=RE%253A%2520Spec%2520Question%2520(07423nfl)%253A%2520&coid=50965&spec=07423nfl&rep=&fax=905-740-2054)
Web: <http://www.northernfacades.com>
 [ [Click Here](https://arcat.com/company/northern-facades-isoclip-50965) ] for additional information.
The ISO Clip creates a thermal break separating the interior of the building from the exterior. Its unique design features reduce thermal transfer through the building envelope. The clip accommodates a variety of insulation thickness or wall depths, eliminating the need for shims. It is engineered to perform on all substrates including concrete, concrete block, steel studs or wood.
ISO Clip is suitable for either vertical or horizontal sub-grits. Its versatility, thermal performance, and ease of use make ISO Clip the product to specify for high-performance building envelopes. The thermal performance of the clip has been modeled and evaluated by the industry leaders, Morrison Hershfield.
ISO Clip is manufactured by Northern Facades, North America's leading fabricator of architectural metal panel, Laminam ceramic panel, and unitized glazing systems.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. ISO Clip - Thermal Isolation Clip. (2.0 inch) (3.25 inch) (4.75 inch)
		2. Clip mounting fasteners (as per Project Engineer's recommendation).
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 10 00 - Structural Metal Framing.
		2. Section 05 40 00 - Cold-Formed Metal Framing.
		3. Section 07 21 19 - Foamed-In-Place Insulation.
		4. Section 06 10 00 - Rough Carpentry.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. American Society of Heating Refrigeration and Air-Conditioning Engineers (ASHRAE):
			1. ASHRAE 90.1 - Energy Standard for Buildings Except Low-Rise Residential Buildings.
		2. ASTM International (ASTM):
			1. ASTM A792 - Standard Specification for Steel Sheet, 55 percent Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
			2. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
		3. National Fire Protection Association (NFPA):
			1. NFPA 285 - Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components.
		4. National Energy Code for Buildings (NECB):
			1. NECB SB-10 - Supplementary Standard.
		5. Underwriters Laboratories Canada (ULC):
			1. CAN/ULC-S134-13 - Standard Method of Fire Test of Exterior Wall Assemblies. (Note conducted on both combustible and non-combustible cladding.)
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern and color.
		2. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.
		3. Sustainable Design Submittals:

\*\* NOTE TO SPECIFIER \*\* Delete product data paragraph if minimum recycled content for LEED v4, "Materials and Resources Credit" is not required.

* + - 1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
			2. DECLARE Label
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
		2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
		3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
			1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
			2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
			3. Retain mock-up during construction as a standard for comparison with completed work.
			4. Do not alter or remove mock-up until work is completed or removal is authorized.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		2. Protect from damage due to weather, excessive temperature, and construction operations.
	2. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	3. WARRANTY
		1. Manufacturer's standard limited warranty unless indicated otherwise.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Northern Facades - ISOclip, which is located at:6451 Northwest Dr.Mississauga, ON, Canada L4V 1K2Toll Free Tel: 844-740-2050Tel: 905-740-2050Fax: 905-740-2054Email: [request info (info@isoclips.com )](https://arcat.com/rfi?action=email&company=Northern%252BFacades%252B-%252BISOclip&message=RE%253A%2520Spec%2520Question%2520(07423nfl)%253A%2520&coid=50965&spec=07423nfl&rep=&fax=905-740-2054);Web: <http://www.northernfacades.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
	1. PERFORMANCE AND DESIGN REQUIREMENTS

\*\* NOTE TO SPECIFIER \*\* ISO Clip is suitable for either vertical or horizontal sub-girts. Its versatility, thermal performance, and ease of use make ISO Clip the product to specify for high-performance building envelopes. The thermal performance of the clip has been modeled and evaluated by the industry leaders, Morrison Hershfield.

* 1. ISO CLIPS - Thermal Isolation Clip.
		1. Performance and Design Requirements:
			1. High Load Capacity per Clip: Less clips may be required compared to synthetic or aluminum clips resulting in less thermal bridging.
			2. May assist achieving multiple LEED V4 credits as a component part of wall assembly.
			3. Built in slotted retaining tab to ease installation of girts.
			4. Mounting Orientation: The same regardless of horizontal or vertical girt orientation.
			5. Substrates: All, including concrete, concrete block, steel studs or wood.
			6. Effective Wall Assembly R-Value: As determined by Architect in combination with Insulation system.
			7. Accommodate a variety of wall depths and insulation thicknesses.

\*\* NOTE TO SPECIFIER \*\* Select the ISO Clip size below based on insulation requirements. Delete clips not utilized on the project.

* + - * 1. 2.0 inch ISO Clip Insulation Thickness Range: 2 to 3.5 inches (51 to 89 mm).
				2. 3.25 inch ISO Clip Insulation Thickness Range: 4 to 6 inches (101 to 152 mm).
				3. 4.75 inch ISO Clip Insulation Thickness Range: 5 to 8 inches (127 to 203 mm).

\*\* NOTE TO SPECIFIER \*\* Three clip sizes mentioned below in "B." "C." "" Delete the ones that are not utilized on the project.

* + 1. Product: 2 inch (51 mm) ISO Clip - Thermal Isolation Clip: Assists in creating thermal break between interior and exterior of building. Reduces thermal transfer through building envelope.
			1. Standards Compliance:
				1. ASHRAE 90.1, NECB SB-10 compliance, with thermal analysis available.
				2. NFPA 285: Pass.
				3. CAN / ULC S134-13: Pass.
			2. Clip Material: 14ga ASTM A792 Galvalume or ASTM A653 Galvanized, steel.

\*\* NOTE TO SPECIFIER \*\* Salmon-Safe coating is optional. Delete if not required.

* + - * 1. Salmon-Safe encapsulated coating.
			1. Thermal Isolator Pad: Glass fibre reinforced polyamide.
			2. Adjustment: Plus or minus 1/4 inch (6 mm) wall deviation. No shims required.
			3. Insulation Thickness Range: 2 to 3.5 inch (51 to 89 mm) of insulation
		1. Product: 3.25 inch (83 mm) ISO Clip - Thermal Isolation Clip: Assists in creating thermal break between interior and exterior of building. Reduces thermal transfer through building envelope.
			1. Standards Compliance:
				1. ASHRAE 90.1, NECB, SB-10 compliance, with thermal analysis available.
				2. NFPA 285: Pass.
				3. CAN / ULC S134-13: Pass.
			2. Clip Material: 14ga ASTM A792 Galvalume or ASTM A653 Galvanized, steel.

\*\* NOTE TO SPECIFIER \*\* Salmon-Safe coating is optional. Delete if not required.

* + - * 1. Salmon-Safe encapsulated coating.
			1. Thermal Isolator Pad: Glass fibre reinforced polyamide.
			2. Adjustment: Plus or minus 1/2 inch (13 mm) wall deviation. No shims required.
			3. Insulation Thickness Range: 4 to 6 inch (101 to 152 mm) of insulation.
		1. Product: 4.75 inch (121 mm) ISO Clip Thermal Isolation Clip: Assists in creating thermal break between interior and exterior of building. Reduces thermal transfer through building envelope.
			1. Standards Compliance:
				1. ASHRAE 90.1, NECB, SB-10 compliance, with thermal analysis available.
				2. NFPA 285: Pass.
				3. CAN / ULC S134-13: Pass.
			2. Clip Material: 14 ga ASTM A792 Galvalume or ASTM A653 Galvanized, steel.

\*\* NOTE TO SPECIFIER \*\* Salmon-Safe coating is optional. Delete if not required.

* + - * 1. Salmon-Safe encapsulated coating.
			1. Thermal Isolator Pad: Glass fibre reinforced polyamide.
			2. Adjustment: Plus or minus 1/2 inch (13 mm) wall deviation. No shims required.
			3. Insulation Thickness Range: 5 to 8 inch (127 to 203 mm) of insulation.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly constructed and prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install cladding support system components in accordance with manufacturer's written instructions, approved submittals, and the following:
			1. Install in proper relationship with adjacent materials.
			2. Install cladding support system assembly level, plumb, and square within 1/8 inch in 20 ft. (3.2 mm in 6.1 m) noncumulative allowable tolerance.
		2. Install cladding support system in compliance with orientation, sizes, and locations as indicated.
			1. Use termination trim at rough openings to properly transition and enclose continuous insulation (CI) system to provide thermally broken transition from opaque wall assemblies.
			2. Trim to be covered by exterior cladding materials and flashings.
	4. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection, or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
	1. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturer's recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION