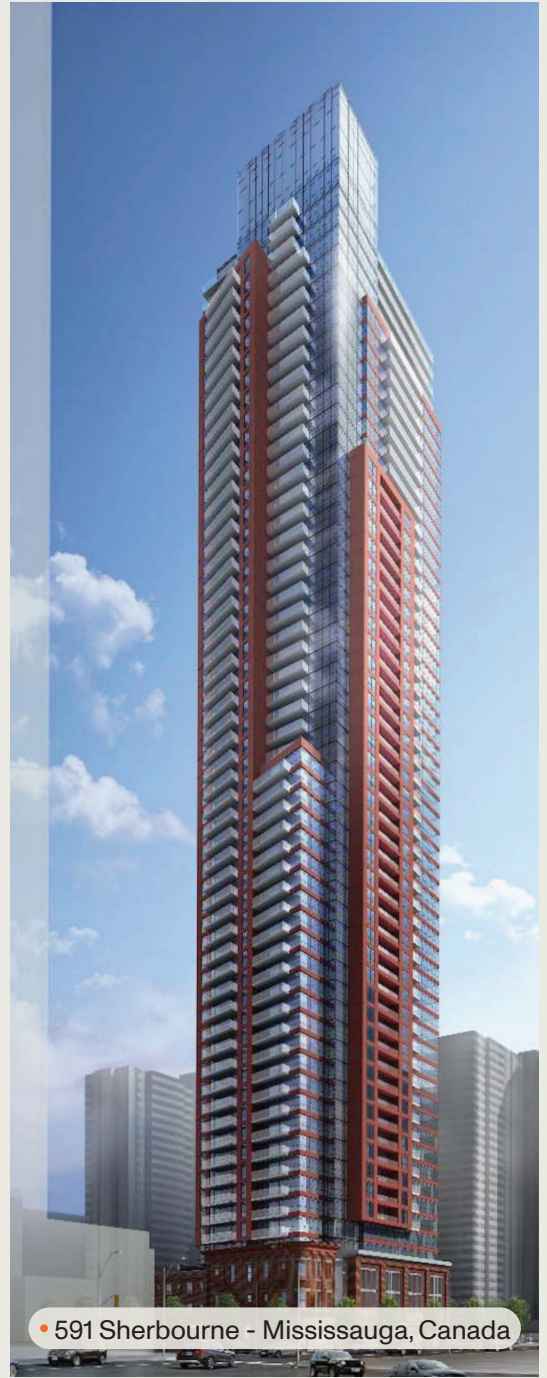# CladiFab Installation System
Pre-Fab Wall System

MITREX™

Hyatt House Downtown - Toronto, Canada

591 Sherbourne - Mississauga, Canada

Carrtera Avonhead - Mississauga, Canada
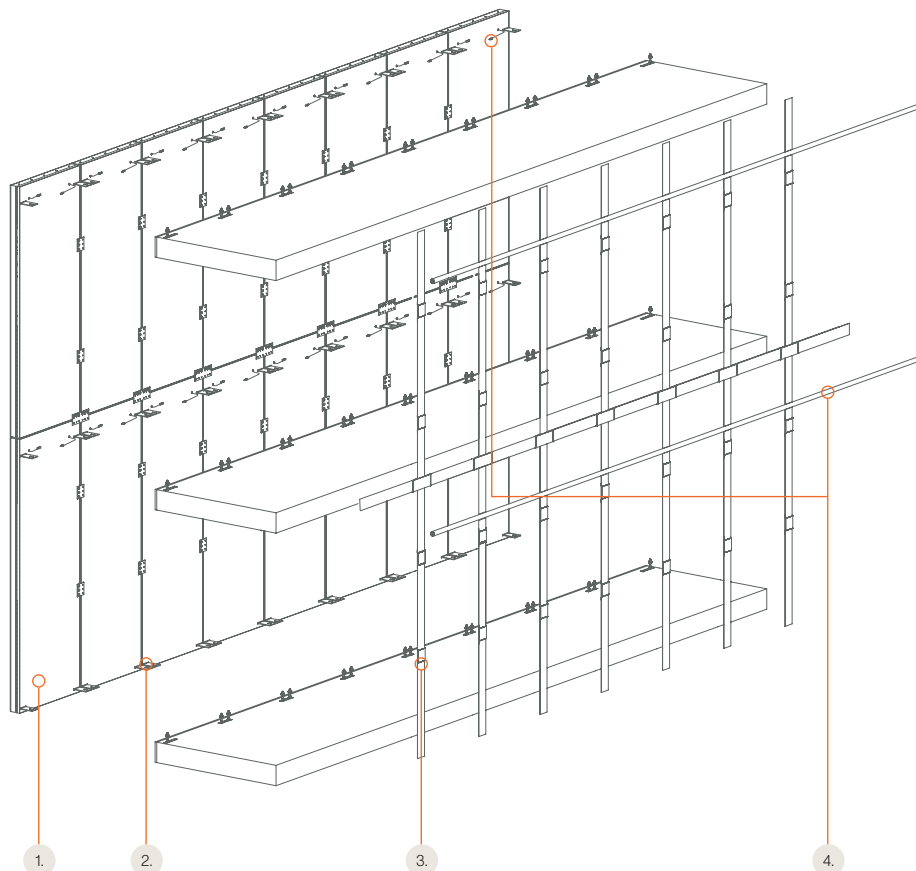
CladiFab Installation System

Introduction

The Mitrex CladiFab System is a construction solution that transforms building exteriors with prefabricated wall panels. Merging efficiency, durability, and eco-friendliness, the CladiFab system simplifies the building process with quick-to-install, lightweight panels. These panels are easy to handle and provide excellent insulation, achieving up to an R-60 rating. They are also remarkably resilient, designed to withstand extreme conditions. With a strong commitment to sustainability, the system uses environmentally friendly materials, making it an ideal choice for modern, eco-conscious construction projects.

- Integrated prefab wall system
- Quick and easy installation
- Lightweight system & reduced structural loads
- Optimal performance with up to R-60
- 3rd party tested to withstand Martian environment

System Components

● CladiFab System - Components Detail

1. Panel (Customizable Facing, Insulation, Air and Moisture Barrier, Honeycomb Backing)

2. Attachment System

3. Transition Membrane

4. Conduits and Connections

1.   2.   3.   4.
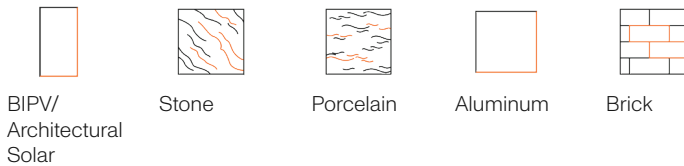
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System Features

1. Prefabricated wall system
   - Prefabricated wall system with full wall assembly
   - Insulation, AWB, and wall assembly included
   - Installation from inside or out
2. Improved installation
   - Quick installation
   - Slab to slab attachments & structural slabs required
3. Versatile assembly
   - Lightweight system & reduced structural loads
   - Floor to floor panel spans
4. High-performing envelope
   - Fewer connection points
   - Thermal & acoustic insulation
   - Up to R-60
5. Code compliant
   - 3rd party tested and code compliant system.
   - Fire testing including NFPA 285, S134, EN 13501, and more.

● CladiFab System

Multi-Facing Panels

Mitrex takes pride in pushing the boundaries of facade technology, offering an unparalleled range of customizable facing options including BIPV, stone, porcelain, brick, and aluminum PVDF.
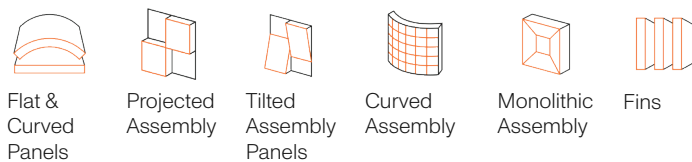

BIPV/ Architectural Solar   Stone   Porcelain   Aluminum   Brick

Shapes

Mitrex Solar Facade system is a symphony of versatility and flexibility, harmonizing with the rhythm of modern architecture. It's not just about panels; it's about monolithic architectural elements that breathe life into columns, curve around contours, and stretch across extruded facades. Imagine panels cut at daring angles, high-performing bonding materials, and reinforced with aerospace metal for a seamless, monolithic appearance.

Flat & Curved Panels   Projected Assembly   Tilted Assembly Panels   Curved Assembly   Monolithic Assembly   Fins
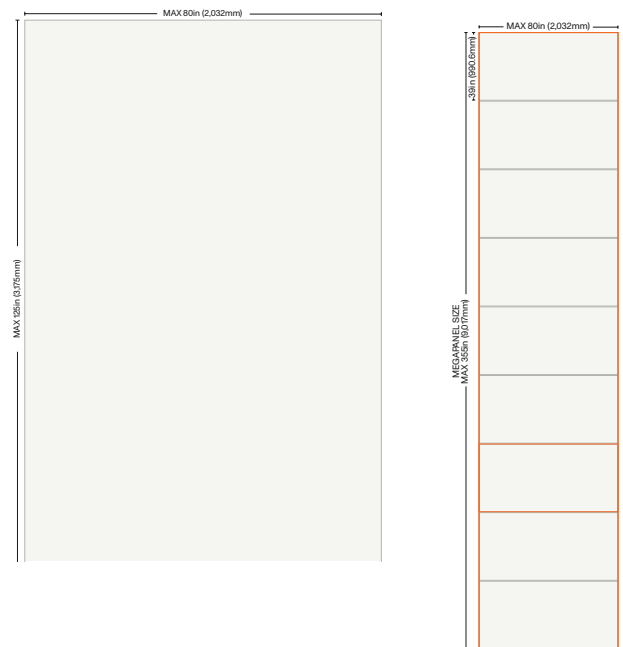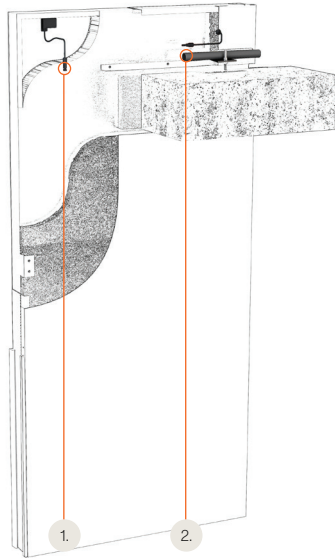
Sizes

The CladiFab System offers maximum custom panels measuring 125in x 80in. For larger projects, the system also features maximum pre-assembled panels measuring 355in x 80in. These dimensions ensure seamless integration and efficient installation on various building facades.

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Connection and Wiring

CladiFab seamlessly integrates BIPV, with all electrical components ingeniously concealed. This system not only strengthens your wall but also energizes it, maintaining aesthetic integrity while harnessing solar power.

1. Module Wiring
2. Conduit

Environmental

CladiFab embodies environmental consciousness by using green technologies and materials to reduce construction's environmental impact. Our approach prioritizes renewable resources, energy-efficient designs, and premium insulation to enhance building performance and lower carbon footprints. Dedicated to sustainability, CladiFab employs eco-friendly production methods, with products that are 96% recyclable, promoting resilient and environmentally friendly structures.

Quality & Durability

The CladiFab Installation System is recognized for its top-quality and long-lasting durability. Using high-grade materials and advanced construction techniques, CladiFab is designed to withstand harsh weather, providing consistent performance over time. Our focus on quality is validated by maintaining rigorous quality control standards demonstrated with ISO 9001 compliance. Our commitment to excellence is further validated with ISO 10002 and ISO 10004, ensuring that customer satisfaction and quality management is met.

Warranty

The CladiFab installation system comes with a comprehensive 25-year product warranty, covering its use as a building material, and includes a performance warranty ensuring at least 80% of its initial capacity by the 25th year. This extensive warranty provides the assurance of CladiFab's lasting reliability and efficiency, making it suitable for various architectural applications.

Testing

Test	Test Description	Result
ASTM E283	Air Leakage Resistance	Qinf – 0.031 cfm/ft2 or 0.155 L / s-m2 at 300 Pa; Qexf – 0.024 cfm/ft2 or 0.122 L / s-m2 at 300 Pa
ASTM E330	Structural Performance by Uniform Static Air Pressure Difference	Design Load at +/-80 psf (+/- 3840 Pa), No failure or permanent deformation
ASTM E331	Water Penetration Resistance	No water infiltration at 15 psf or 720 Pa
CAN / ULC S134	Standard Method Fire Test of Exterior Wall Assemblies	Passed
CAN / ULC S135	Standard Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)	Total Heat Release: ≤ 3 MJ/m²; Smoke Extinction Area: ≤ 1.0 m² (≤ 0.7 m²)
ASTM E84	Tunnel Test	Flame Spread Index: 10; Smoke Developed Index: 200; Class A
CAN / ULC S114	Non-Combustibility in Building Materials	Passed
ASTM E90	Sound Transmission Class	STC Rating 55
EN13501	Fire Classification of Construction Products and Building Elements	Rating: A2-s1,d0

Compare Our Systems

		● CladiShield	● Claditized	● CladiFab
	System Render			
System	Lightweight Panel System	✔	✔	✔
	System Type	Rainscreen wall system	Unitized wall system	Prefabricated, complete wall system
	Wall Components Included	Insulation, AWB not included	Insulation, AWB, and wall assembly components not included	Insulation, AWB, and wall assembly components included
	Air and Water Tight	Air and water tight, and rainscreen principle	Air and water tight	Air and water tight, and rainscreen principle
	Insulation & AWB	Continuous insulation and AWB	-	Continuous insulation and AWB
Features	System Weight	3.16 lb/sq ft	2.63 lb/sq ft	3.19 lb/sq ft
	R-Value	Unlimited R-value equivalency	Unlimited R-value equivalency	Maximum R-60
	Panel Size	80in x 39in (2032mm x 990mm)	Maximum Custom: 125in x 80in (3175mm x 2032mm)	Maximum Custom: 125in x 80in (3175mm x 2032mm)
			Maximum Preassembled: 355in x 80in (9017mm x 2032mm)	Maximum Preassembled: 355in x 80in (9017mm x 2032mm)
Installation	Sequencing	Structure built, walls and windows built, then panels installed	Structure built, walls and windows built, then panels installed	Structure built, walls and windows built, then panels installed
	Installation Speed	-	Quick installation	Quick installation
	Installation Capacity	250 Installed SF/Day/Crew	500 Installed SF/Day/Crew	500 Installed SF/Day/Crew

Compare Our Systems

		• CladiShield	• Claditized	• CladiFab
	Installation position	Installation from outside	Installation from inside or outside	Installation from inside or outside
	Support required	Backup wall required	Structural slabs required	Structural slabs required
	Support Attachment	Attachment to backup wall with subframing	Slab to slab attachment	Slab to slab attachment
	Panel Spans	-	Floor to floor panel spans	Floor to floor panel spans
	Concealed Fasteners	✔	✔	✔
Design	Panel Spans	Multi-facing options including BIPV/ architectural solar, stone, porcelain, aluminum PVDF, brick veneer	Multi-facing options including BIPV/architectural solar, stone, porcelain, aluminum PVDF, brick veneer	Multi-facing options including BIPV/architectural solar, stone, porcelain, aluminum PVDF, brick veneer
	Irregular design capabilities	✔	✔	✔
Performance	Connection Points	-	Fewer connection points	Fewer connection points
	Reduced thermal bridging	✔	✔	✔
	Improved acoustic performance	✔	✔	✔
	Reduced structural loads	✔	✔	✔
Testing	3rd party tested	✔	✔	✔
	Code-compliant & safety tested	✔	✔	✔
	Fire tested	✔	✔	✔

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- **Learn More**

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