



- Facade PRO

Architectural solar facades, reimagined

Energy Generating Building Materials:
eFacade PRO Product Datasheet

 MITREX™

⚡ eFacade PRO

eFacade PRO by Mitrex is a high-performance solar facade solution that blends aesthetics with cutting-edge building-integrated photovoltaic (BIPV) technology. This ventilated rainscreen system features an invisible extruded aluminum profile encasing high-efficiency solar cells, paired with a customizable facing available in 48 colors.

Now available in sizes up to 39×80 inches for optimal cost efficiency, eFacade PRO is engineered for durability, energy performance, and architectural versatility. The facing acts as a design canvas—allowing your building to come to life—seamlessly integrating solar power into your building envelope.

For even more customization, including unlimited sizes, colors, and textures, explore Mitrex eFacade PRO+.

☀️ Energy

Generates 7–18W/SF of clean energy while maintaining durability, reducing carbon emissions, and supporting net-zero energy goals.

🏠 Colors & Sizes

With 48 standard colors and custom sizes up to 39×80 inches, this system combines high solar performance with flexible design options across a range of finishes.

🌧️ Rainscreen System

Features ventilated rainscreen system improving thermal performance, reducing moisture, and enhancing energy efficiency.

♻️ Sustainability

Supports lower carbon footprints through clean energy generation, recyclable components, and efficient, low-carbon materials.

🛡️ Certifications

Meets safety standards including UL 61730, UL 61215, ASTM E1996 for impact resistance, and ASTM E330 for wind load performance.

🔥 Fire Safety

Meets global fire safety standards, including NFPA 285 and EN 13501 A2-s1,d0, and is built with non-combustible materials.

🌪️ Performance

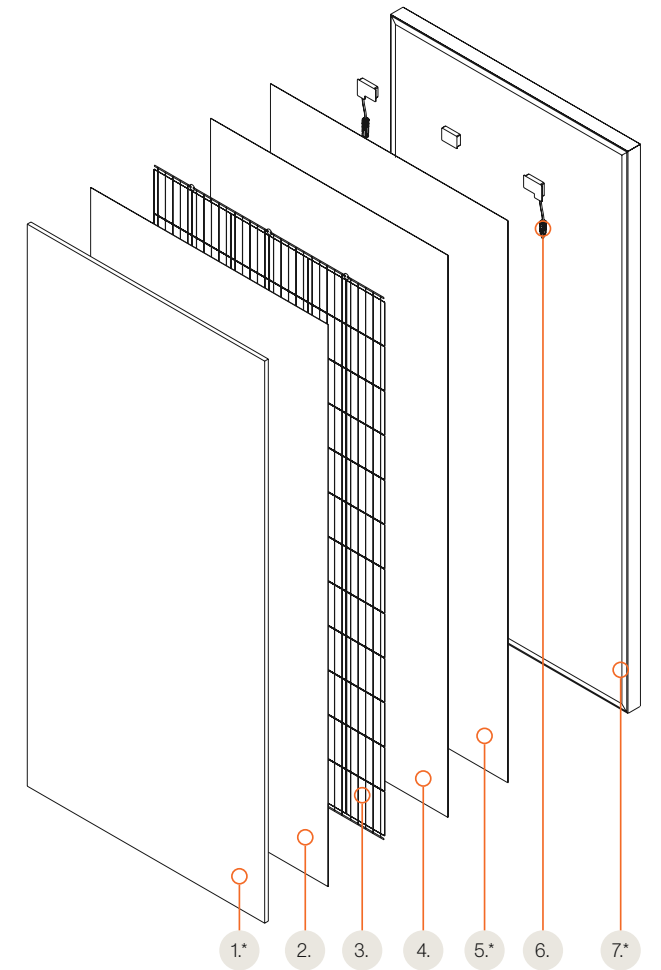
Built with premium materials and tested for durability, this system withstands extreme weather, UV exposure, and thermal stress—ideal for high-performance buildings in any climate.

🔧 Maintenance

Designed for longevity, this system features self-cleaning, UV-resistant panels that resist dirt, fading, and corrosion—requiring minimal upkeep and backed by a 25-year performance warranty.

💰 Incentives

Projects using this system may qualify for sustainability incentives such as government rebates, green energy grants, and low-cost financing across North America.



eFacade PRO Module Details

1. Glass / Customizable Facing - * See page 6 - 8
2. and 4. Encapsulant
3. ⚡ Solar Cells
5. Back Sheet - *See page 8, Section Solar Backsheet Capabilities
6. Junction Box
7. Extruded Aluminum Profile - * See page 8



OWNER:
University of Toronto
ARCHITECT:
Diamond Schmitt Architects/MVRDV
GENERAL CONTRACTOR:
EllisDon
BUILDING TYPE:
University, Medical
PROJECT SIZE:
63,000 SQFT
POWER OUTCOME:
Facade Power: 513kW
Panel Power: 119kW

University Of Toronto - Toronto, ON, Canada



ARCHITECT:
CIMA+
OWNER/ GENERAL CONTRACTOR:
Computer Room Services
Corporation (CRSC)
BUILDING TYPE:
Commercial (Offices)
PROJECT SIZE:
5,000 SQFT
POWER OUTCOME:
Facade Power: 25kW



Royal Bank of Canada - ON, Canada

General Electrical And Mechanical Data

Standard Module Size: 2034 × 994 mm (80 × 39.1 in)

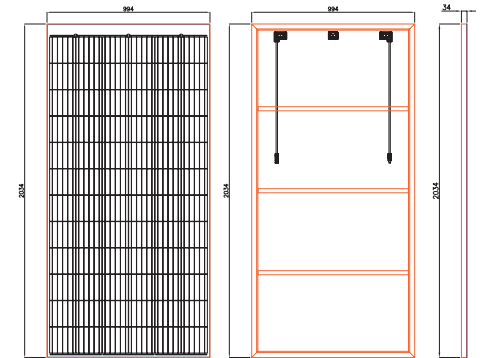
● Test

Test Conditions	STC
Module Power (Pmax)	See Page 13
Maximum Power Voltage (Vpmax)	See Page 13
Maximum Power Current (Ipmax)	See Page 13
Open Circuit Voltage (Voc)	See Page 13
Short Circuit Current (Isc)	See Page 13
Module Efficiency	See Page 13
Cell Efficiency	22.5% - Monocrystalline Solar Cell
Maximum System Voltage (VDC)	1000V (IEC/UL)
Series Fuse Rating	20A
Power & Other Electrical Specification Tolerance	5%
Application Classification	Class A

Measurement Conditions: STC 1000 W/m² - AM 1.5 - Temperature 25°C

● Specification

● Engineering Drawing



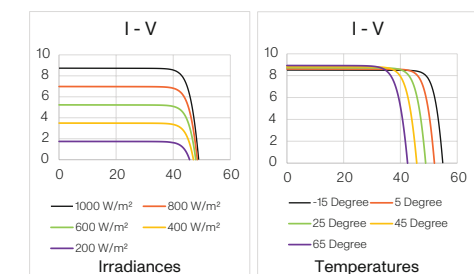
● Mechanical Properties

Metric	Imperial
Module Weight	83.1lbs
Dimensions (H x L x D)	80 × 39.1 × 1.3in
Maximum Surface Load (Wind / Snow)	167.1psf rear load / 167.1psf front load
Design Load	112.5psf rear load / 112.7psf front load
Hail Impact Resistance	ø 1in at 51.6 mph
Cells	72 [12×6] Mono-crystalline (6.25 × 6.25in)
Glass	0.23in tempered glass, high transmittance, anti-reflective coating
Cables & Connectors	47.2in - 0.16in ² , 12 AWG (UL) MC4 from Staubli
Backsheet	High durability, UV resistant, PV backsheet
Frame	Extruded aluminum profile
Bypass Diodes	3 diodes- 30SQ045T (45V max DC blocking voltage, 30A max forward rectified current)
Junction Box	IP68 rated, TUV and UL certified
Fire Rating	Type II

● Temperature Ratings

Temperature Coefficient Isc	0.036% /°C
Temperature Coefficient Voc	-0.27% /°C
Temperature Coefficient Pmax	-0.36% /°C
Nominal Module Operating Temperature	45 ± 3°C
Operating Temperature	-40°C ~ +85°C

● I-V Curves



*Varies, These graphics are based on a 345W panel

Colors and Patterns

Finish

Modules feature satin glass, providing a smooth, low-reflective finish that enhances both aesthetics and performance.

Color Variety

Available in 48 colors and patterns, organized into two distinct solar series: Genesis and Exodus.

Design Flexibility

Available in a variety of module sizes, ranging from a maximum of 80 × 39 in (2,034 × 994 mm) to a minimum of 49 × 27 in (1,245 × 686 mm).







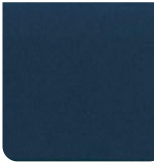






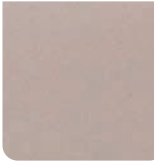
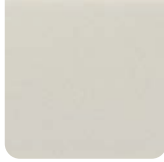

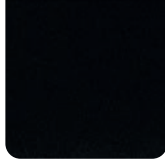


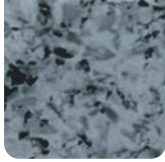



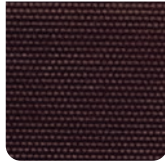

ORDER A FREE SAMPLE!
 Experience the look and feel of our solar cladding. Scan the QR code or visit www.mitrex.com to order your free Mitrex sample today.

Mitrex Genesis Series

Mitrex Genesis Solar Series seamlessly blends aesthetics with innovation, offering a diverse range of color options that can be optimized to meet any design vision. These advanced solar facings provide both energy generation and architectural versatility, redefining the possibilities of sustainable building design.

Mitrex Exodus Series

Delivers a sleek, uniform aesthetic with a single-color design per module, ensuring a consistent and sophisticated look. While the color options are fixed, these high-performance solar facings seamlessly integrate renewable energy into any architectural project.

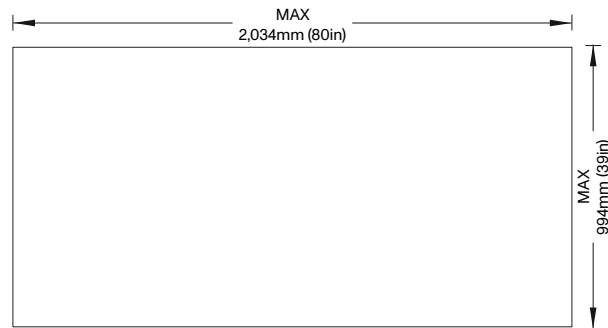
 Icy White ⚡ 5W/SQFT	 Polaris ⚡ 9W/SQFT	 Ash Beige ⚡ 11W/SQFT	 Gravel Grey ⚡ 11W/SQFT	 Smokey Grey ⚡ 10W/SQFT	 Charcoal Grey ⚡ 10W/SQFT	 Navy Blue ⚡ 11W/SQFT
 Turquoise ⚡ 7W/SQFT	 Peridot ⚡ 5W/SQFT	 Dull Yellow ⚡ 6W/SQFT	 Dull Orange ⚡ 5W/SQFT	 Brown ⚡ 9W/SQFT	 Red ⚡ 9W/SQFT	 Pale Rose ⚡ 7W/SQFT
 Beige ⚡ 5W/SQFT	 Core Black ⚡ 18W/SQFT	 Blackout ⚡ 16W/SQFT	 Arcturus - Limestone ⚡ 12W/SQFT	 Astra - Limestone ⚡ 11W/SQFT	 Moonstone - Granite ⚡ 10W/SQFT	 Carbo - Granite ⚡ 15W/SQFT
 Orbit - Marble ⚡ 16W/SQFT	 Rocksalt - Marble ⚡ 11W/SQFT	 Cassia - Metal ⚡ 14W/SQFT	 Cobaltic - Metal ⚡ 13W/SQFT			

 Nobel Grey ⚡ 10W/SQFT	 Silver Grey ⚡ 10W/SQFT	 Ironside Grey ⚡ 13W/SQFT	 Monsoon ⚡ 13W/SQFT	 Boulder ⚡ 13W/SQFT	 Natural Grey ⚡ 13W/SQFT	 Iron Filings ⚡ 14W/SQFT
 Storm Grey ⚡ 13W/SQFT	 Gun Smoke ⚡ 13W/SQFT	 Ebony Grey ⚡ 13W/SQFT	 Ocean ⚡ 15W/SQFT	 Deep Ocean ⚡ 15W/SQFT	 Blue Jay ⚡ 14W/SQFT	 Sea ⚡ 14W/SQFT
 Purple ⚡ 13W/SQFT	 Apple Blossom ⚡ 8W/SQFT	 Irish Coffee ⚡ 12W/SQFT	 Cocoa Bean ⚡ 9W/SQFT	 Wet Sand ⚡ 12W/SQFT	 Gold ⚡ 11W/SQFT	 Espresso Martini ⚡ 10W/SQFT
				 Storm Dust ⚡ 8W/SQFT	 Pine Cone ⚡ 13W/SQFT	

Panel Details

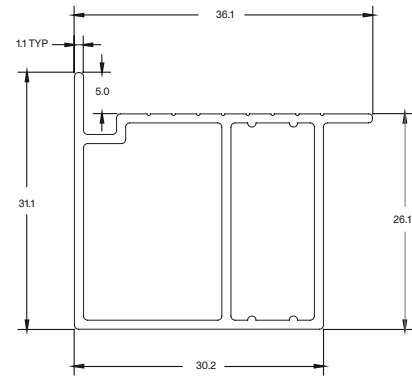
Size Capabilities

Mitrex offers eFacade PRO panels in a wide range of sizes, with a maximum size of 80 × 39 inches. For larger dimensions, please refer to Mitrex eFacade PRO+.



Extruded Aluminum Profile Mechanical Data

	Imperial	Metric
Dimensions (H x L)	1.22 × 1.42in	31.1 × 36.1mm
Weight	0.29lb/ft	0.43kg/m
Elastic Modulus	10,000 psi	69 GPa
Tensile Strength	31,000 psi	214 MPa
Shear Strength	22,000 psi	152 MPa
Material	Aluminum Alloy	



Lifetime Warranty

- Mitrex solar facade products physically last the lifetime of the building and beyond as a building envelope product.
- The warranty guarantees that the energy generation will have a minimum energy output of 80% by year 25. However, energy generation will continue after the warranty period ends for as long as the panels are on the wall.
- Our lifetime warranty ensures reliable, durable facades as the panels require minimal maintenance and there is zero panel replacement needed for the building lifetime.

Solar Glass Type

Mitrex offers eFacade PRO with Satin Glass. For other glass options, please refer to Mitrex eFacade PRO+.

Solar Glass Mechanical Data



	Imperial	Metric
Thickness (0.23in / 6mm)	0.23 ± 0.012in	6 ± 0.3mm
Dimensional Tolerance	± 0.04in	± 1.0mm
Density	0.09lbs/in ³	2.5gm/cm ³
Corner	Radius, Chamfer or cut (0.04-0.16in)	Radius, Chamfer or cut (1.0-4.0mm)
Overall Bow / Warp (EN 12150-1:2015)	0.16in / 39.37in	4.0mm/M / 990mm/M
Local Warp (EN 12150-1:2015)	0.002in / 11.8in	0.5mm / 300mm/M
Bending Strength (EN 12150-1:2015) (0.13in / 3.2mm)	516.06lbs/in	90N/mm
Bending Strength (EN 12150-1:2015) (0.23in / 6mm)	685.21lbs/in	120N/mm
Iron Content (ASS)	<120ppm	
Edge	At least seamed	
Scratch Hardness (Mohs)	5	
Fragmented Particles in 50×50mm (If Tempered) (EN 12150-1:2015)	Min 40 pcs	

Solar Glass Facing Specification

	Certification	Imperial	Metric
Density	ASTM C729	158lb/ft ³	2,530kg/m ³
Absorption By Wt.	ASTM C373	0%	0%
Compressive Strength	-	150,000psi	1,000MPa
Flexural Strength (Dry)	ASTM C158	8,700psi	60MPa
Modulus Rupture	ASTM C158	5,950psi	41MPa
Hardness	ASTM C730	570KHN	

For further mechanical information about solar glass, please check Mitrex solar glass datasheet.

Solar Backsheet Capabilities

Backsheet	High durability, UV resistant, PV backsheet
Color	<div style="display: flex; align-items: center; gap: 20px;"> <div style="text-align: center;">  <p>Black Backsheet</p> </div> <div style="text-align: center;">  <p>White Backsheet</p> </div> </div>

Testing and Certifications

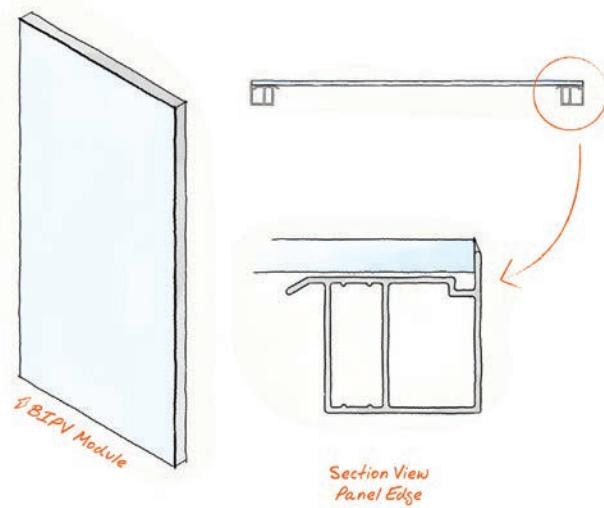
Category	Test Name	Test Specification	Result
Acoustic	Sound Transmission Loss	ASTM E90	Sound Transmission Rating: CladiShield Rainscreen: 34; Claditized Unitized: 35; CladiFab Prefab: 55
	Salt Spray Resistance	ASTM B117-16	No deleterious effects.
Environmental	Air Leakage Resistance	ASTM E283-04 (2012)	LITE, PRO, CladiShield: Qinf = 0.031 cfm/ft ² or 0.155 L/s-m ² at 300 Pa; Qexf = 0.024 cfm/ft ² or 0.122 L/s-m ² at 300 Pa
	Water Penetration Resistance	ASTM E331	No water infiltration at 15 psf or 720 Pa
	Dust and Sand Test	IEC 60068-2-68	No visual anomalies
	Cyclic Salt Mist Exposure	IEC 61701 (2011)	No significant corrosion or ingress
	Moist Ammonia Exposure	IEC 62716 (2013)	No significant corrosion or ingress
	Fire Safety	Standard Methods of Fire Endurance Tests of Building Construction Materials	ASTM E119 / CAN/ULC S101
Exterior Wall Assembly Fire Test		CAN/ULC S134	Passed
Fire Classification		EN13501	Rating: A2-s1,d0
Tunnel Test		ASTM E84	FSI = 10; SDI = 200; Class A
Non-Combustibility (ASTM E136)		ASTM E136	Passed
Multi-Story Fire Test		NFPA 285	Passed
Surface Burning Characteristics		CAN/ULC S102	FSR = 0; Class A
Non-Combustibility (CAN/ULC S114)		CAN/ULC S114	Passed
Combustibility Parameters (Cone Calorimeter)		CAN/ULC S135	Passed NBCC 2015 requirements
Cyclic Pressure Loading		ASTM E1886 / TAS 203	Passed. Over 3,500 positive and negative pressure cycles were applied at ± 2880 Pa (60 psf), equivalent wind load of 165 mph.
Impact / Safety	Structural Performance by Uniform Static Air Pressure Difference	ASTM E330	LITE, PRO, CladiShield: Design Load at +/-80 psf or +/- 3840 Pa; No Failure
	Linear Thermal Expansion	ISO 10545-8	11.28 × 10 ⁻⁶ /°C
Thermal	Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval	IEC/UL 61215	Passed
	Potential-Induced Degredation (PID)	IEC TS 62804-1:2025	Passed
	Standard for Photovoltaic (PV) Module Safety	IEC/UL 61730	Passed
PV Quality			
PV Safety			



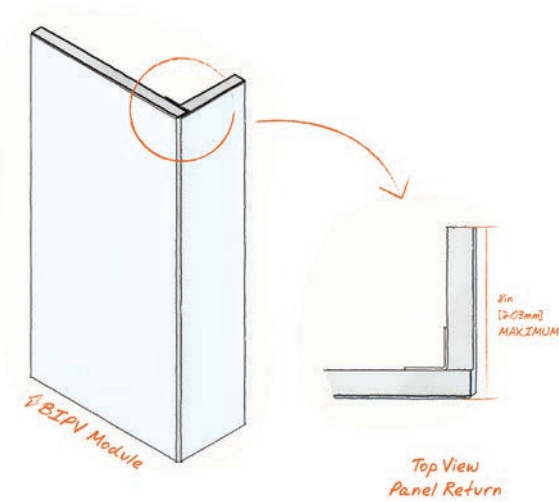
Corners & Edges Details

At Mitrex, every detail matters—right down to the corners and edges. eFacade PRO corner and edge solutions are engineered to maintain the aesthetic continuity of the building envelope while ensuring performance, safety, and durability.

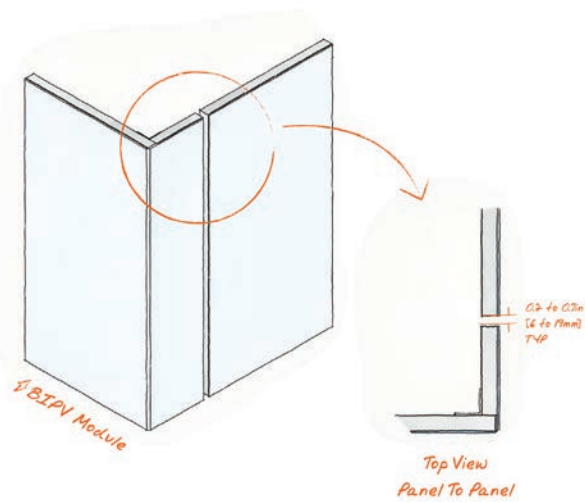
Panel Edge



Panel Return



Panel to Panel



Extruded Aluminum Profile Panel Tolerances

	Imperial	Metric
Dimensional Variation Length	± 0.07in	± 2mm
Dimensional Variation Width	± 0.07in	± 2mm
Thickness Tolerance	± 0.03in	± 1mm
Diagonal Difference	± 0.19in	± 5mm

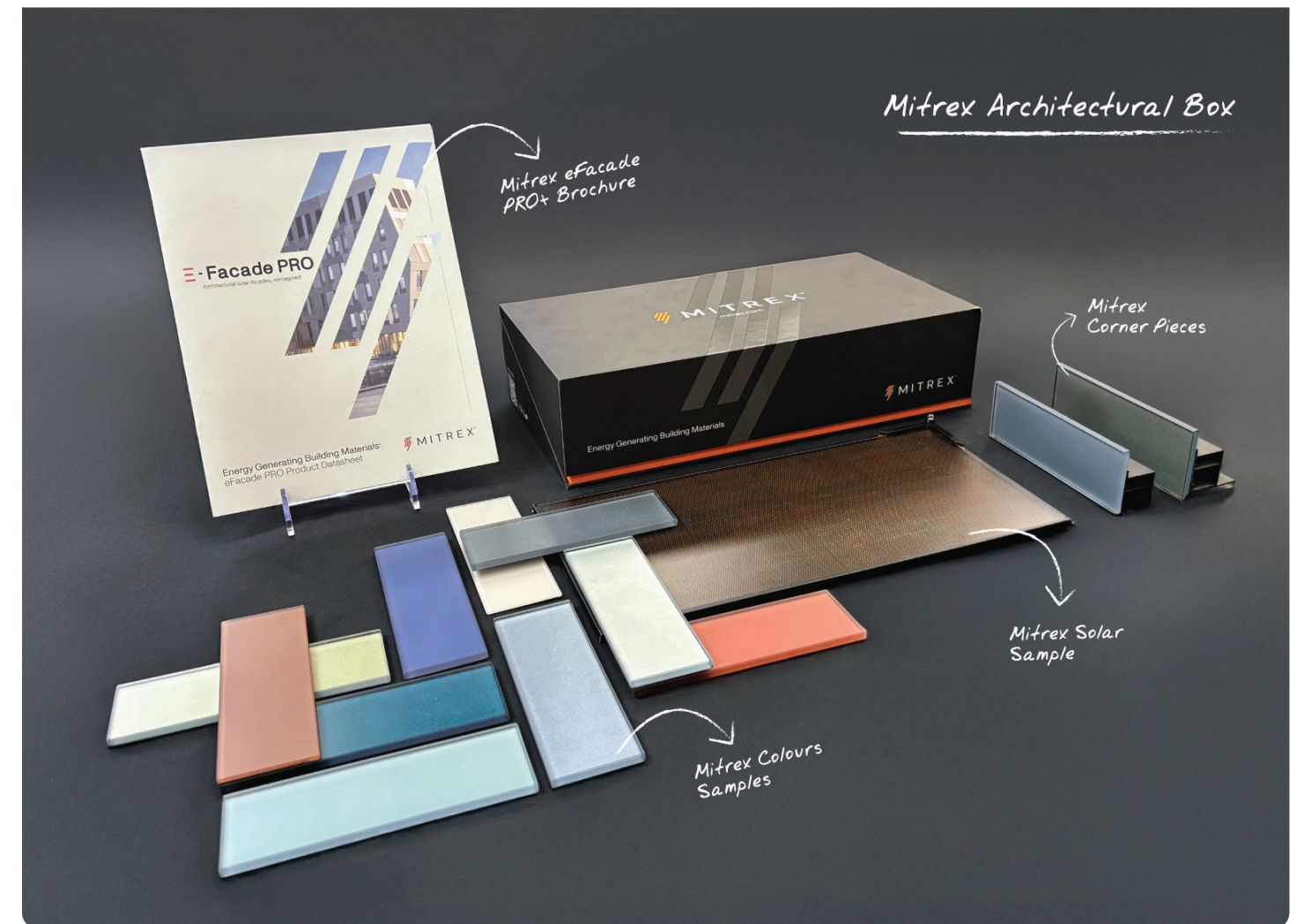
Request Your Mitrex Architectural Box

The Mitrex Architectural Box is a curated toolkit that brings the potential of eFacade PRO directly to your hands. Designed with architects in mind, this box features a complete snapshot of our solar cladding system's capabilities — including a physical brochure, scaled-down corner and edge profiles, an active eFacade PRO sample, and a range of color chips showcasing our standard Genesis and Exodus finishes.

Whether you're exploring façade aesthetics, energy performance, or system integration, this box offers a tangible preview of what Mitrex can deliver.

Contact us at info@mitrex.com to request your sample box today. Let's build the future — beautifully and sustainably.

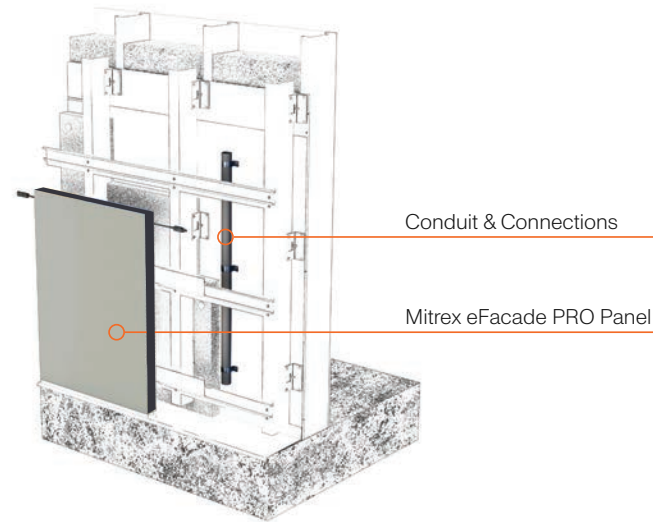
ORDER A FREE ARCHITECTURAL BOX!
 Experience the look and feel of our solar cladding. Scan the QR code or visit www.mitrex.com to order your free Mitrex architectural box today.



System Details

Cladishield Rainscreen System

With Cladishield Rainscreen system, you don't just get cladding panels—you get a complete wall solution. Provided by Mitrex's sister company, Cladify, the system is a comprehensive package that includes a high-performing air and moisture barrier, continuous insulation, adjustable sub-framing systems, and, of course, our exceptional multi-facing cladding.



Test	Rating
Smoke And Flame Spread (ASTM E84)	Class A
Sound Transmission Coefficient (ASTM E90)	34

Tolerances Details

	Imperial	Metric
Dimensional Variation Length	± 0.07in	± 2mm
Dimensional Variation Width	± 0.07in	± 2mm
Thickness Tolerance	± 0.03in	± 1mm
Diagonal Difference	± 0.19in	± 5mm



Electrical Data

● Model Name	● Module Power (W/SF)	● Max. Power Current - Imax (A)	● Max. Power Voltage - Vmax (V)	● Short Circuit Current - Isc (A)	● Open Circuit Current - Voc (V)	● Module Efficiency (%)
Apple Blossom	8	4.16	40.90	4.44	47.50	8%
Arcturus	12	6.26	42.30	7.36	48.40	13%
Ash Beige	11	5.20	40.40	5.45	47.90	11%
Astra	11	6.92	42.60	8.20	48.70	12%
Beige	5	2.61	40.30	2.74	46.90	5%
Blackout	16	8.62	40.60	9.07	48.90	17%
Blue Jay	14	7.59	40.20	7.90	48.50	15%
Boulder	13	6.90	40.60	7.23	48.50	14%
Brown	9	4.62	41.10	4.96	47.70	9%
Carbo	15	6.85	41.60	7.12	48.10	16%
Cassia	14	7.32	41.00	7.74	48.60	15%
Charcoal Grey	10	5.43	40.50	5.71	48.00	11%
Cobaltic	13	6.14	40.70	6.49	48.30	14%
Cocoa Bean	9	4.62	41.10	4.96	47.70	9%
Core Black	18	9.31	41.90	9.97	48.20	19%
Deep Ocean	15	8.17	40.40	8.55	48.70	16%
Dull Orange	5	3.21	40.50	3.39	47.10	6%
Dull Yellow	6	3.21	40.50	3.39	47.10	6%
Ebony Grey	13	7.00	40.70	7.36	48.60	14%
Espresso Martini	10	5.43	40.50	5.71	48.00	11%
Gold	11	5.67	40.60	5.97	48.10	11%
Gravel Grey	11	5.97	40.20	6.19	48.10	12%
Gun Smoke	13	7.00	40.70	7.36	48.60	14%
Icy White	5	3.21	40.50	3.39	47.10	6%
Irish Coffee	12	6.44	40.40	6.71	48.30	13%
Iron Filings	14	7.48	40.10	7.77	48.40	15%
Ironside Grey	13	6.67	40.50	6.97	48.40	13%
Monsoon	13	6.77	40.60	7.10	48.50	14%
Moonstone	10	5.38	40.90	5.71	48.00	11%
Natural Grey	13	7.00	40.70	7.36	48.60	14%
Navy Blue	11	6.08	40.30	6.32	48.20	12%
Nobel Grey	10	5.20	40.40	5.45	47.90	10%
Ocean	15	7.94	40.30	8.29	48.60	16%
Orbit	16	7.95	40.90	8.34	48.60	17%
Pale Rose	7	3.45	40.60	3.66	47.20	7%
Peridot	5	3.21	40.50	3.39	47.10	6%
Pine Cone	13	6.77	40.60	7.10	48.50	14%
Polaris	9	4.16	40.90	4.44	47.50	9%
Purple	13	6.90	40.60	7.23	48.50	14%
Red	9	4.62	41.10	4.96	47.70	9%
Rocksalt	11	5.74	41.80	6.17	48.30	12%
Sea	14	7.48	40.10	7.77	48.40	15%
Silver Grey	10	5.43	40.50	5.71	48.00	11%
Smokey Grey	10	5.43	40.50	5.71	48.00	11%
Storm Dust	8	4.26	41.00	4.57	47.60	9%
Storm Grey	13	6.90	40.60	7.23	48.50	14%
Turquoise	7	3.68	40.70	3.92	47.30	7%
Wet Sand	12	6.44	40.40	6.71	48.30	13%



• Kingston, ON, Canada

ARCHITECT:
RLA Architecture
DEVELOPER:
Homestead Land Holdings
BUILDING TYPE:
Residential / Office Building

PROJECT SIZE:
6,000 SQFT
POWER OUTCOME:
37kW



• Edmonton, AB, Canada

ARCHITECT:
MBC Group
OWNER / DEVELOPER:
Avenue Living/Logyx Solutions
BUILDING TYPE:
Residential Retrofit

PROJECT SIZE:
30,534 SQFT
POWER OUTCOME:
267kW



• Toronto, ON, Canada

ARCHITECT:
Paradigm Architecture + Design
DEVELOPER:
Sionito Group
BUILDING TYPE:
Long Term Care Residential Building

PROJECT SIZE:
Solar Facade: 50,432 SQFT
Solar Railing: 2,360 LFT
POWER OUTCOME:
Solar Facade: 350kW
Solar Railing: 11kW



• Chinook Hospital, AB, Canada

ARCHITECT:
Reimagine Architects
OWNER / DEVELOPER:
Alberta Health Services
BUILDING TYPE:
Hospital / Medical

PROJECT SIZE:
9,000 SQFT
POWER OUTCOME:
58kW

Mitrex eFacade Products Comparison

Mitrex offers three distinct solar cladding solutions—eFacade LITE, eFacade PRO, and eFacade PRO+—each engineered to meet varying project needs in terms of design flexibility, performance, and scale.

The table below provides a detailed comparison across key features such as colors and finishes, sizing options, weight, system compatibility, and testing standards. Whether you're prioritizing affordability, customization, or advanced performance, this side-by-side overview will help you identify the best fit for your project.

	• eFacade LITE	• eFacade PRO	• eFacade PRO+
Colors & Patterns	5 color options	48 color options	Unlimited customizable colors & patterns
	Finish: Satin glass Thickness: 0.24in (6mm)	Finish: Satin glass Thickness: 0.24in (6mm)	Finish: Super satin, satin, matte, glossy, wood grain, aqualite, and more. Thickness: 0.12-0.47in (3.2-12mm)
Sizes & Weight	2 size options: 73 × 36 in (1854 × 922 mm) 73 × 18 in (1854 × 456 mm)	Custom sizes up to 80 × 39 in (2034 × 994mm).	Customizable single piece sizes up to 125 × 80 in (3,175 × 2,030mm). Preassembled pieces up to 420 inches (10.7m) long.
	Weight: 3.87 lb/SQFT (18.9 kg/sqm)	Weight: 3.84 lb/SQFT (18.8 kg/sqm)	Weight: 3.1 - 4.7 lb/SQFT (15.4-23.1 kg/sqm)
	Backing: Extruded aluminum profile with panel thickness of 1.3in (34mm)	Backing: Extruded aluminum profile with panel thickness of 1.3in (34mm)	Backing options: <u>Extruded aluminum profile with panel thickness: 1.3in (34mm).</u> <u>Aluminum honeycomb with panel thickness:</u> • 1 in (25mm) honeycomb: 1.18in (30.2mm) - 1.23 in (33mm). • 2 in (50mm) honeycomb: 2.17in (55.2mm) - 2.28 in (58mm).
	Shapes: rectangle	Shapes: rectangle	Customizable Shapes: rectangle, triangle, circle, and more
Systems	Ventilated rainscreen system, eFacade LITE system	Ventilated rainscreen system (interlocking channel or anchor plate)	Customizable rainscreen, unitized or prefabricated system options
	System Thickness: 3.9in (101mm)	System Thickness: 1.5 in (39mm) - 2.32 (59mm)	System Thickness: 1.42 in (36mm) - 4.33in (110mm)
	MOQ of 5,000 SQFT (464.5 sqm)	MOQ of 5,000 SQFT (464.5 sqm)	MOQ of 25,000 SQFT (2,322.5 sqm)
Testing	3rd party tested	3rd party tested	3rd party tested
	Code-compliant & safety tested	Code-compliant & safety tested	Code-compliant & safety tested
	Fire tested	Fire tested	Fire tested

For more information about Mitrex eFacade products, visit mitrex.com or email us at info@mitrex.com

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