



# e-Facade PRO

Architectural solar facades, reimagined

Energy Generating Building Materials:  
eFacade PRO Product Datasheet

 MITREX™

## ⚡ eFacade PRO

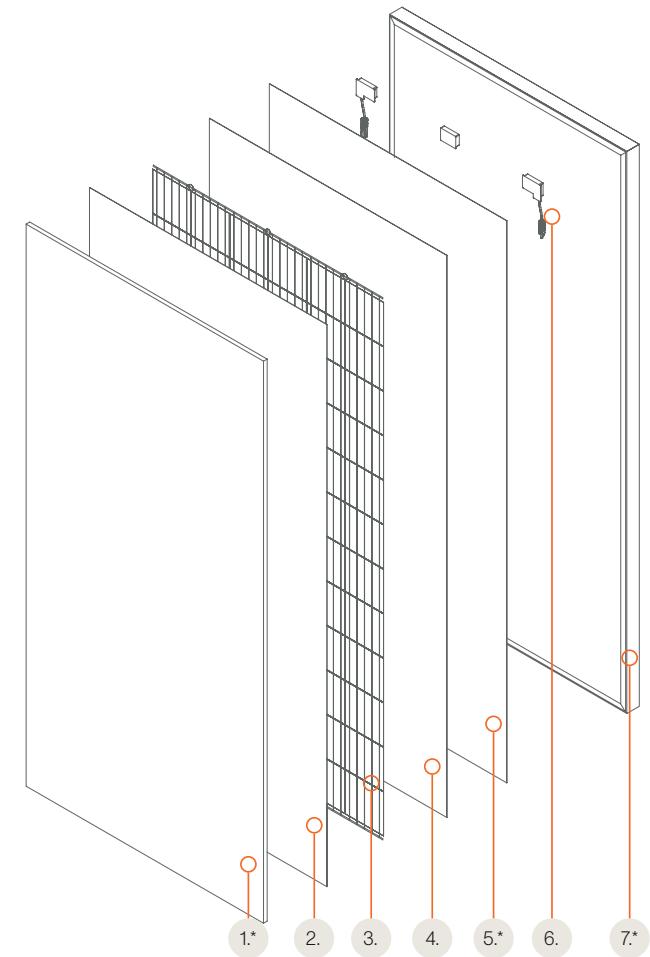
eFacade PRO by Mitrex is a high-performance solar facade solution that blends aesthetics with cutting-edge building-integrated photovoltaic (BIPV) technology. This ventilated rainscreen system features an invisible extruded aluminum profile encasing high-efficiency solar cells, paired with a customizable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

Now available in sizes up to 39x80 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+.



<p><b>Energy</b> Generates 7-18W/SF of clean energy while maintaining durability, reducing carbon emissions, and supporting net-zero energy goals.</p>	<p><b>Colors &amp; Sizes</b> With 48 standard colors and custom sizes up to 39x80 inches, this system combines high solar performance with flexible design options across a range of finishes.</p>	<p><b>Rainscreen System</b> Features ventilated rainscreen system improving thermal performance, reducing moisture, and enhancing energy efficiency.</p>	<p><b>Sustainability</b> Supports lower carbon footprints through clean energy generation, recyclable components, and efficient, low-carbon materials.</p>	<p><b>Certifications</b> Meets safety standards including UL 61730, UL 61215, ASTM E1996 for impact resistance, and ASTM E330 for wind load performance.</p>
<p><b>Fire Safety</b> Meets global fire safety standards, including NFPA 285 and EN 13501 A2-s1,d0, and is built with non-combustible materials.</p>	<p><b>Performance</b> 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.</p>	<p><b>Maintenance</b> 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.</p>	<p><b>Incentives</b> Projects using this system may qualify for sustainability incentives such as government rebates, green energy grants, and low-cost financing across North America.</p>	



### eFacade PRO Module Details

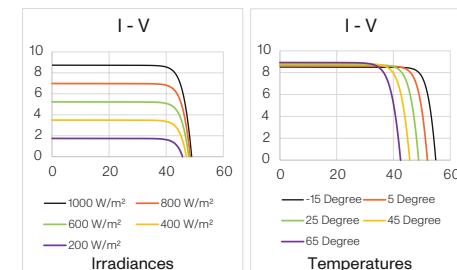
1. Glass / Customizable Facing - \* See page 6 - 8
2. and 4. Encapsulant
3. ⚡ Solar Cells
5. Back Sheet - \*See page 8, Section Solar Backsheet Capabilities
6. Junction Box
7. Extruded Aluminum Profile - \* See page 8



## General Electrical And Mechanical Data

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

● Test	● Specification	● Engineering Drawing
<b>Test Conditions</b>	<b>STC</b>	
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/m <sup>2</sup> - AM 1.5 - Temperature 25°C		
● Mechanical Properties	● Metric	● Imperial
Module Weight	37.8kg	83.1lbs
Dimensions (H x L x D)	2034 × 994 × 34mm	80 × 39.1 × 1.3in
Maximum Surface Load (Wind / Snow)	8000Pa rear load / 8000Pa front load	167.1psf rear load / 167.1psf front load
Design Load	5400Pa rear load / 5400Pa front load	112.5psf rear load / 112.7psf front load
Hail Impact Resistance	Ø 25mm at 83 km/h	Ø 1in at 51.6 mph
Cells	72 [12×6] Mono-crystalline (158.75 × 158.75mm)	72 [12×6] Mono-crystalline (6.25 × 6.25in)
Glass	6mm tempered glass, high transmittance, anti-reflective coating	0.23in tempered glass, high transmittance, anti-reflective coating
Cables & Connectors	1200mm - 4mm <sup>2</sup> , 12 AWG (UL), MC4 from Staubli	47.2in - 0.16in <sup>2</sup> , 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	● I-V Curves	
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	



\*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 x 39 in (2,034 x 994 mm) to a minimum of 49 x 27 in (1,245 x 686 mm).



### ORDER A FREE SAMPLE!

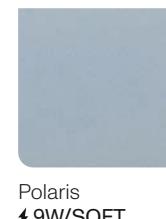
Experience the look and feel of our solar cladding. Scan the QR code or visit [www.mitrex.com](http://www.mitrex.com) to order your free Mitrex sample today.

#### 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.



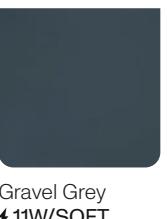
Icy White  
⚡5W/SQFT



Polaris  
⚡9W/SQFT



Ash Beige  
⚡11W/SQFT



Gravel Grey  
⚡11W/SQFT



Smokey Grey  
⚡10W/SQFT



Charcoal Grey  
⚡10W/SQFT



Navy Blue  
⚡11W/SQFT



Nobel Grey  
⚡10W/SQFT



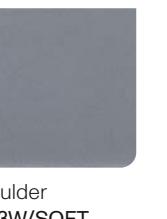
Silver Grey  
⚡10W/SQFT



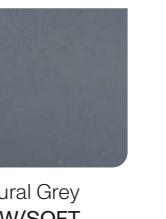
Ironside Grey  
⚡13W/SQFT



Monsoon  
⚡13W/SQFT



Boulder  
⚡13W/SQFT



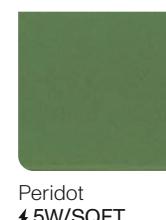
Natural Grey  
⚡13W/SQFT



Iron Filings  
⚡14W/SQFT



Turquoise  
⚡7W/SQFT



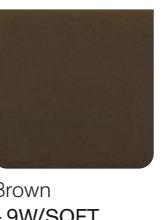
Peridot  
⚡5W/SQFT



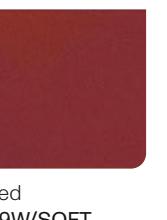
Dull Yellow  
⚡6W/SQFT



Dull Orange  
⚡5W/SQFT



Brown  
⚡9W/SQFT



Red  
⚡9W/SQFT



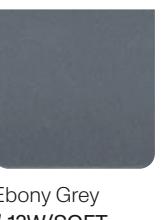
Pale Rose  
⚡7W/SQFT



Storm Grey  
⚡13W/SQFT



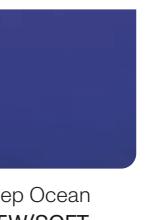
Gun Smoke  
⚡13W/SQFT



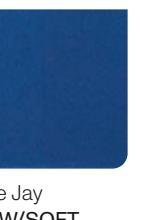
Ebony Grey  
⚡13W/SQFT



Ocean  
⚡15W/SQFT



Deep Ocean  
⚡15W/SQFT



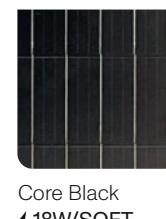
Blue Jay  
⚡14W/SQFT



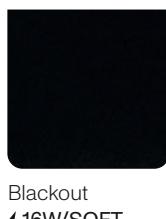
Sea  
⚡14W/SQFT



Beige  
⚡5W/SQFT



Core Black  
⚡18W/SQFT



Blackout  
⚡16W/SQFT



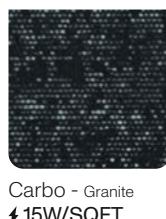
Arcturus - Limestone  
⚡12W/SQFT



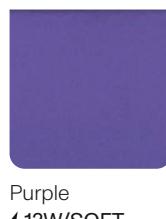
Astra - Limestone  
⚡11W/SQFT



Moonstone - Granite  
⚡10W/SQFT



Carbo - Granite  
⚡15W/SQFT



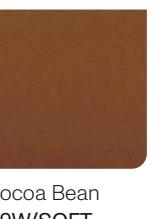
Purple  
⚡13W/SQFT



Apple Blossom  
⚡8W/SQFT



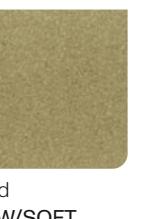
Irish Coffee  
⚡12W/SQFT



Cocoa Bean  
⚡9W/SQFT



Wet Sand  
⚡12W/SQFT



Gold  
⚡11W/SQFT



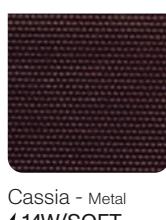
Espresso Martini  
⚡10W/SQFT



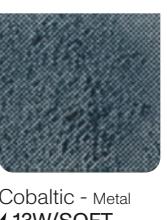
Orbit - Marble  
⚡16W/SQFT



Rocksalt - Marble  
⚡11W/SQFT



Cassia - Metal  
⚡14W/SQFT



Cobaltic - Metal  
⚡13W/SQFT



Storm Dust  
⚡8W/SQFT



Pine Cone  
⚡13W/SQFT

## Panel Details

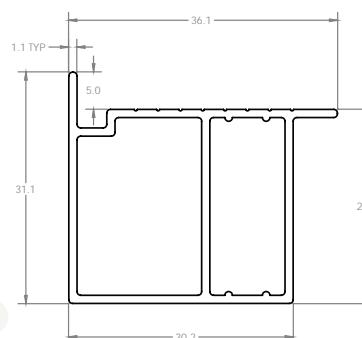
### Size Capabilities

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



### Extruded Aluminum Profile Mechanical Data

	Imperial	Metric
Dimensions	1.42 x 1.22in	36.1 x 31.1mm
Weight	0.29lb/ft	0.43kg/m
Tensile Modulus	$10 \times 10^6$ psi	69 GPa
Tensile Strength	$0.21 \times 10^5$ psi	145 MPa
Shear Strength	$0.17 \times 10^5$ psi	117 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)	$0.23 \pm 0.012$ in	6 ± 0.3mm
Dimensional Tolerance	± 0.04in	± 1.0mm
Density	0.09lbs/in <sup>3</sup>	2.5gm/cm <sup>3</sup>
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 / 11.81in	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 <sup>3</sup>	2,530kg/m <sup>3</sup>
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	Black Backsheet      White Backsheet

## Testing and Certifications

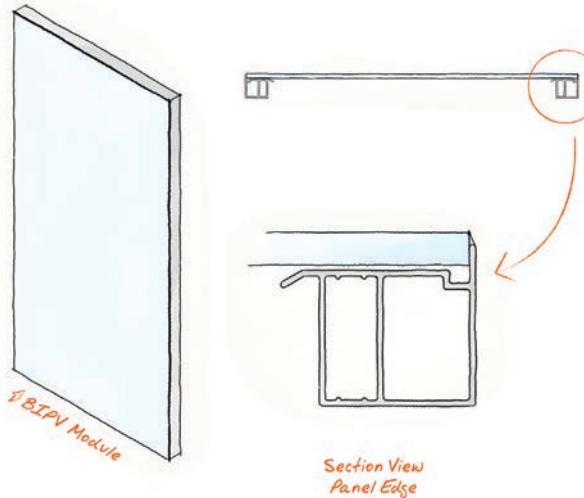
Category	Test Name	Test Specification	Result
Acoustic	Sound Transmission Loss	ASTM E90	Sound Transmission Rating: CladShield Rainscreen: 34; Claditized Unitized: 35; CladFab Prefab: 55
Environmental	Salt Spray Resistance	ASTM B117-16	No deleterious effects.
	Resistance to Rapid Freezing and Thawing	ASTM C666/C666M-15	No visible change to panel
	Air Leakage Resistance	ASTM E283-04 (2012)	$Q_{in} = 0.031 \text{ cfm/ft}^2$ or $0.155 \text{ L/s-m}^2$ at 300 Pa; $Q_{exf} = 0.024 \text{ cfm/ft}^2$ or $0.122 \text{ L/s-m}^2$ at 300 Pa
	Fluorescent UV Exposure	ASTM G154 -16	No visible change
	Water Penetration Resistance	ASTM E331	No water infiltration at 15 psf or 720 Pa
Fire Safety	Fire Endurance Test	ASTM E119 / CAN/ULC S101	Passed
	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
Impact / Safety	Large Missile Impact Test	ASTM E1996 / TAS 201	Passed
	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.
Structural	Structural Performance	ASTM E330	+/- 80 psf or +/- 3840 Pa; no failure
Thermal	Thermal Resistance	ASTM 1363-11	0.20 m <sup>2</sup> ·°C/W (1.12 hr·ft <sup>2</sup> ·°F/BTU)
	Linear Thermal Expansion	ISO 10545-8	$11.28 \times 10^{-6}$ /°C
PV Quality	Terrestrial Photovoltaic (PV) Modules - Design Qualification and Type Approval	IEC/UL 61215	Passed
PV Safety	Standard for Photovoltaic (PV) Module Safety	IEC/UL 61730	Passed



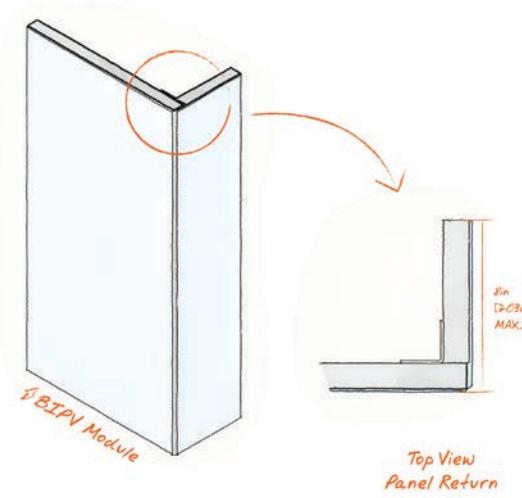
## Corners & Edges Details

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.

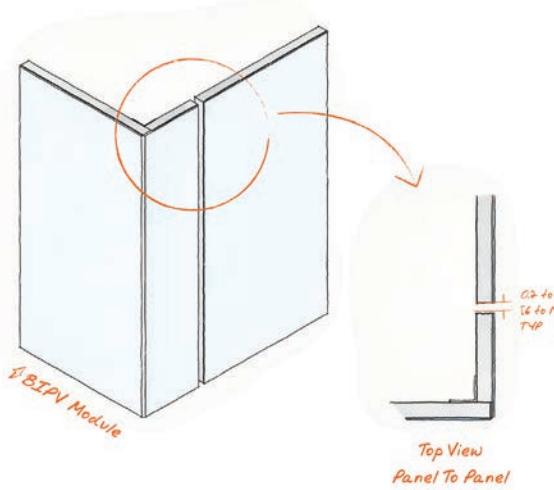
Panel Edge



Panel Return



Panel to Panel



## Module Tolerances Details

	Imperial	Metric
Dimensional Variation Length	$\pm 0.07\text{in}$	$\pm 2\text{mm}$
Dimensional Variation Width	$\pm 0.07\text{in}$	$\pm 2\text{mm}$
Thickness Tolerance	$\pm 0.03\text{in}$	$\pm 1\text{mm}$
Diagonal Difference	$\pm 0.19\text{in}$	$\pm 5\text{mm}$

## 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](mailto: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](http://www.mitrex.com) to order your free Mitrex architectural box today.



## System Details

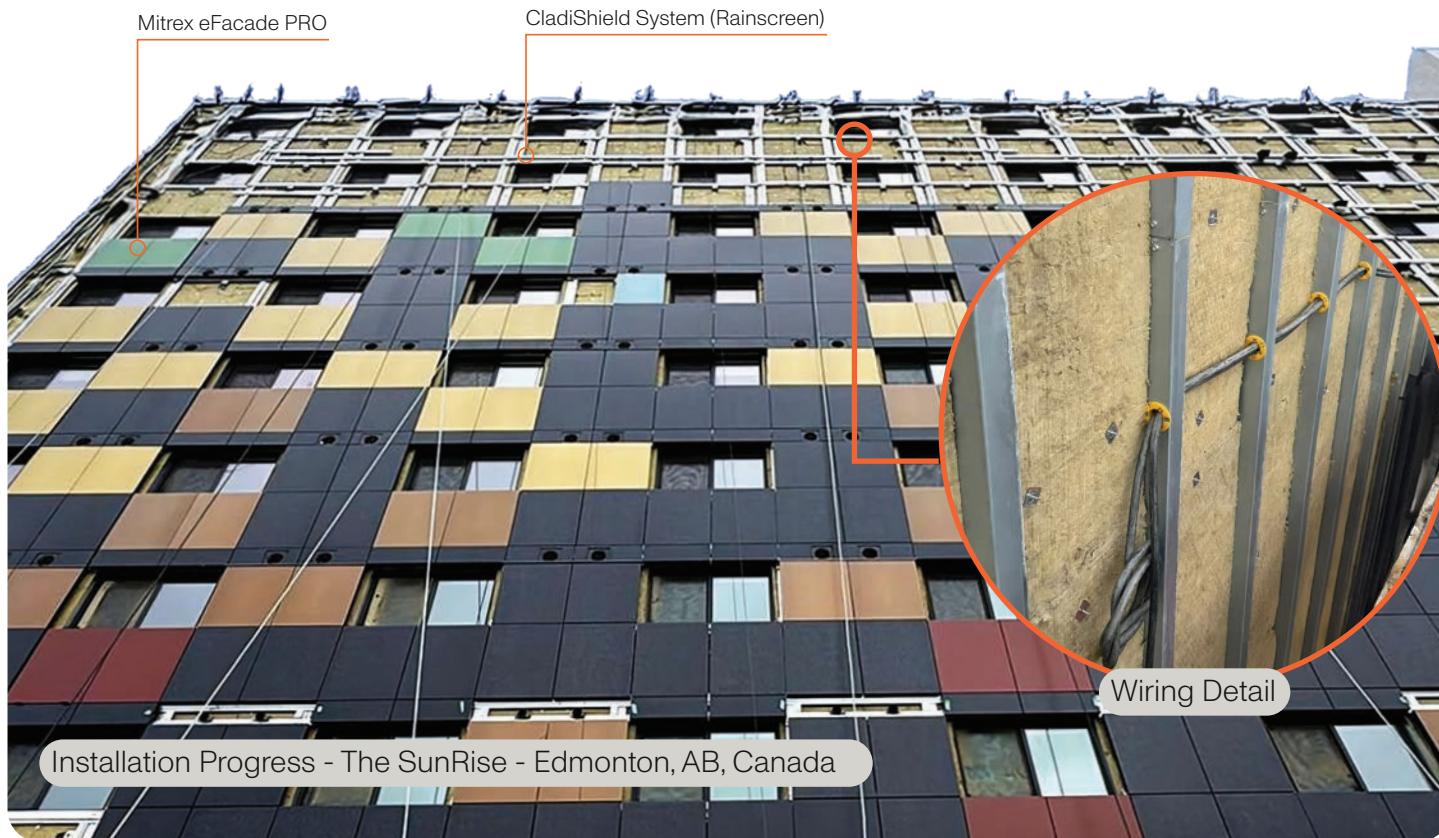
### Cladishield Rainscreen System

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:  
5,973 SQFT  
POWER OUTCOME:  
50kW



• 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



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

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



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

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

## Mitrex eFaciade Products Comparison

Mitrex offers three distinct solar cladding solutions—eFaciade LITE, eFaciade PRO, and eFaciade 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.

	• eFaciade LITE	• eFaciade PRO	• eFaciade 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 x 36 in (1854 x 922 mm) 73 x 18 in (1854 x 456 mm)	Custom sizes up to 80 x 39 in (2034 x 994mm).	Customizable single piece sizes up to 125 x 80 in (3175 x 2032mm). 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: Extruded aluminum profile with panel thickness of 1.3in (34mm). Aluminum honeycomb with 1 or 2 in (25 or 50mm) thickness excluding facing.
Systems	Shapes: rectangle	Shapes: rectangle	Customizable Shapes: rectangle, triangle, circle, and more
	Ventilated rainscreen system, eFaciade LITE system	Ventilated rainscreen system (interlocking channel or anchor plate)	Customizable rainscreen, unitized or prefabricated system options
	System Thickness: 3.78 in (96mm)	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 eFaciade products, visit [mitrex.com](http://mitrex.com) or email us at [info@mitrex.com](mailto:info@mitrex.com)

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Mitrex and Cladify Projects



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