SUNCOL BIPV

Architecture that Generates Power

BUILDING INTEGRATED PHOTOVOLTAICS

Partners for Sustainable Urban Regeneration

Through an integrated operating model that draws on an international team of over 120 professionals (including architects, engineers, energy experts, ESG auditors and specialized consultants), MIR Green Buildings combines high-performance engineering with ecological intelligence. The company develops smart, energy-independent buildings (“Active Buildings”) for the residential, corporate, industrial, and hospitality sectors, actively driving the decarbonization and sustainable development of infrastructure.

PCC cert ENVIRONMENT ISO 14001:2015

PCC cert HEALTH & SAFETY ISO 45001:2023

PCC cert QUALITY ISO 9001:2015

USGBC MEMBER

CQOP SOA Costruttori Qualificati Opere Pubbliche SOA OG1 CLASS V





PILLARS OF ACTION

The “Active Building” concept: goes beyond mere energy savings, transforming properties into “Active Buildings” that are energy positive and CO2-negative. These buildings generate an energy surplus that benefits adjacent structures, the power grid and urban mobility, placing technology at the service of health and well-being.

Integrated supply chain management: eliminates the fragmentation of the operational flow by positioning itself as the sole point of contact and internally coordinating all the operational phases of the project.

Decarbonization and RI.U.SO.: promotes sostenable urban regeneration and deep efficiency of existing building stock to reduce cities’ carbon footprint to zero.

International perspective: exports the Active Building model to the global market, assimilating the best international standards to apply them to local contexts

Areas of Expertise

- EPC
- Energy Requalification
- Advanced Design & Construction
- BIM Services
- Project Management
- In-depth Analysis
- Financial, Tax, & Insurance Consulting
- Green Building Certifications
- ESG Certifications
- ISO and SOA Certifications
- Green Building Material Suppy

Designed in Italy. Delivered Globally

Italy, Switzerland, UAE & India

100+
Professionals

12
Division



One Mission
One Vision
One Value

238
Comleted Projects

77.639.200€
Since 2020

MIR GROUP

MIR Solution

MIR Construction

MIR Consulting

MIR Real Estate

MIR Service

MIR Evolution

MIR Green Building SA

MIR Green Buildings AE

MIR Green Energy

MIR Suncol BIPV

Offices Worldwide **07**

Mission

Lead the energy transition
Lead institutional investors and businesses through smarter and cleaner energy evolution, transforming the 2050 decarbonizationgoal from a challenge to a key milestone for the global green economy. The company is also committed to transformingenvironmental complexity into high-value strategic opportunities, incorporating sustainability, efficiency, and aesthetic value intoevery urban project.

Vision

Towards zero-impact buildings
Firmly believe that sustainability is the ultimate driver of progress, with the ultimate goal of transforming every building into a zero-impact (carbon-neutral) asset.

Vision

- **Multidisciplinary expertise**: integrated team of 360° certified experts.
- **Technological leadership**: advanced solutions (BIPV and storage) to modernize the industry.
- **Decarbonization pathways**: ESG audits and continuous emissions monitoring.
- **Sustainable infrastructure**: development based on global certifications (LEED®, BREEAM®, WELL™).
- **Measurable excellence**: strict international standards to protect the value of assets.



Partners in Net-Zero Vision

To us, they are not simply partners they are the driving force behind our NetZero vision. Through these strategic alliances, we are actively building a sustainable, carbon-neutral future for global infrastructure.

Ecosystem Partners

Silicon Beach Program

Karnataka Digital Economy Mission

GRIHA

IGBC

KREDL

Institutional Partners

Scuola universitaria professionale della Svizzera italiana
SUPSI

POLITECNICO MILANO 1863

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

Global Partners

plenitude

ANCE Associazione Nazionale Costruttori Edili

CONFINDUSTRIA BERGAMO

CQOP SOA Costruttori Qualificati Opere Pubbliche

Suncol

CONTRACT
YOUR VISION, OUR GLOBAL EXPERTISE

ALUMERO

XLAM DOLOMITI

une
Universal Nature Energy

ACCA SOFTWARE

IVAS Industria Vernici

Jendy Joss Building
Sistemi di Costruzione a secco per Edilizia

sintesi

ENERPARC

Astralos

NoviOcean

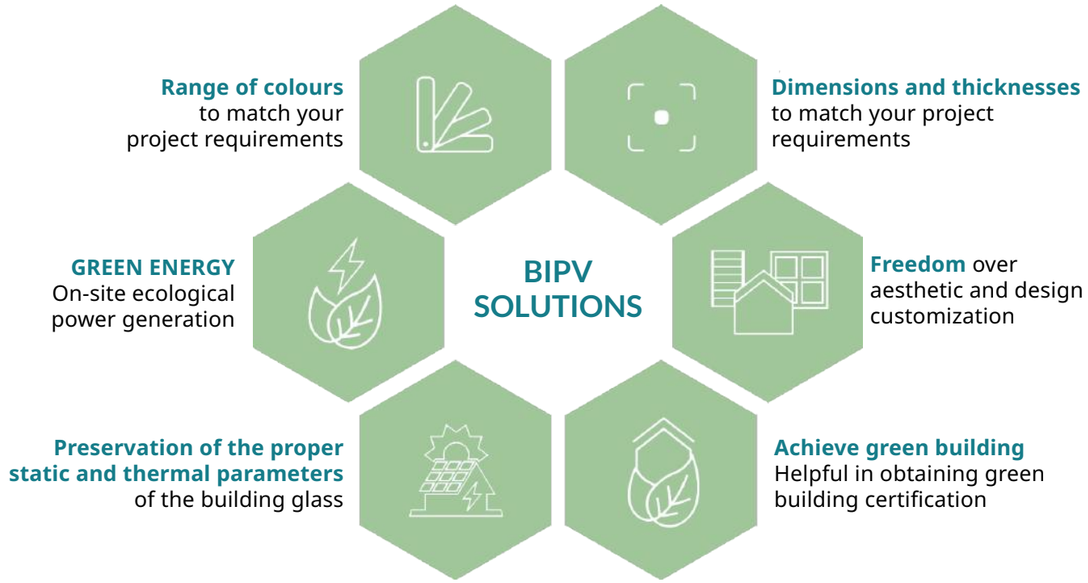
BIGSUN

A new approach to Building Integration with Solar Photovoltaics

Building Integrated Photovoltaic is a new type of building material, which provides green energy as well as building preservation. Apart from generating electricity, BIPV modules also provide lower solar heat gain. They are available in different dimensions, thicknesses, shapes and colours.

We make it possible to make sustainable buildings and green building without compromising on your architectural ideas.

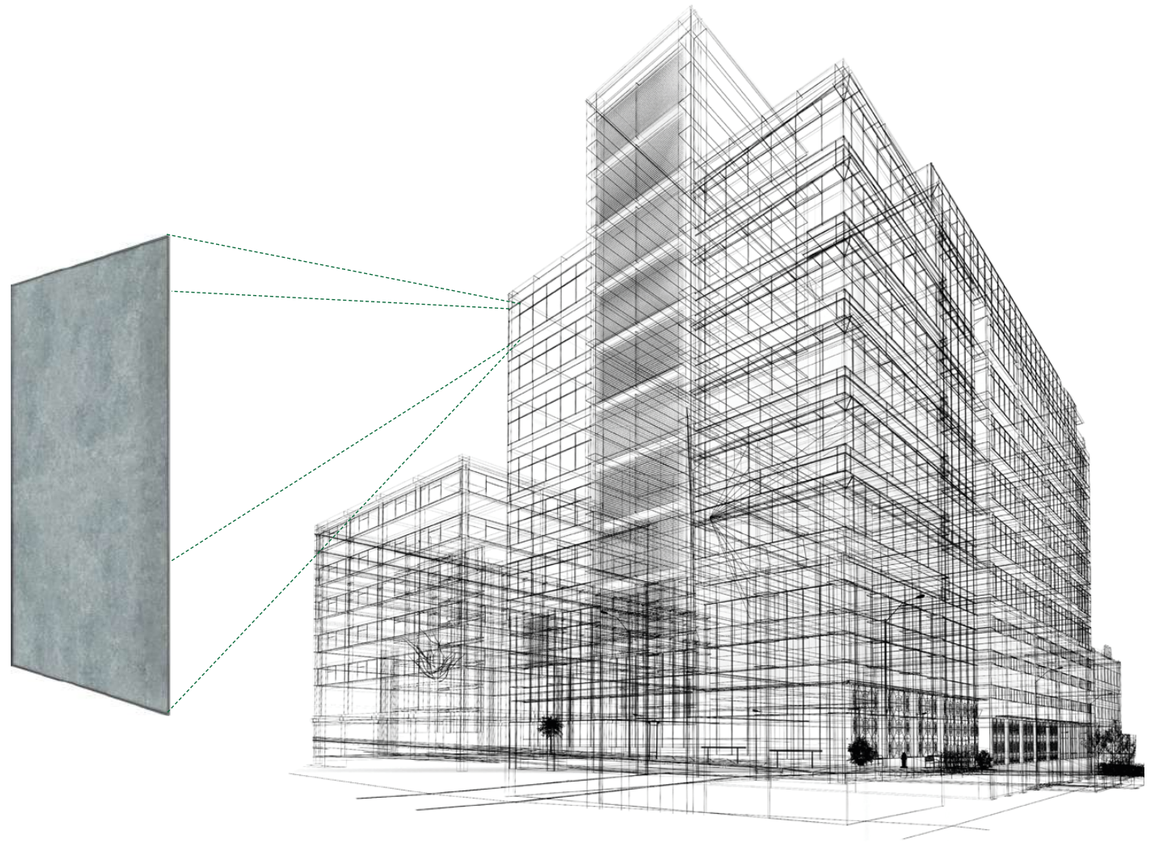
The result is the natural and yet impressive everyday integration of solar solutions in your design & architecture.



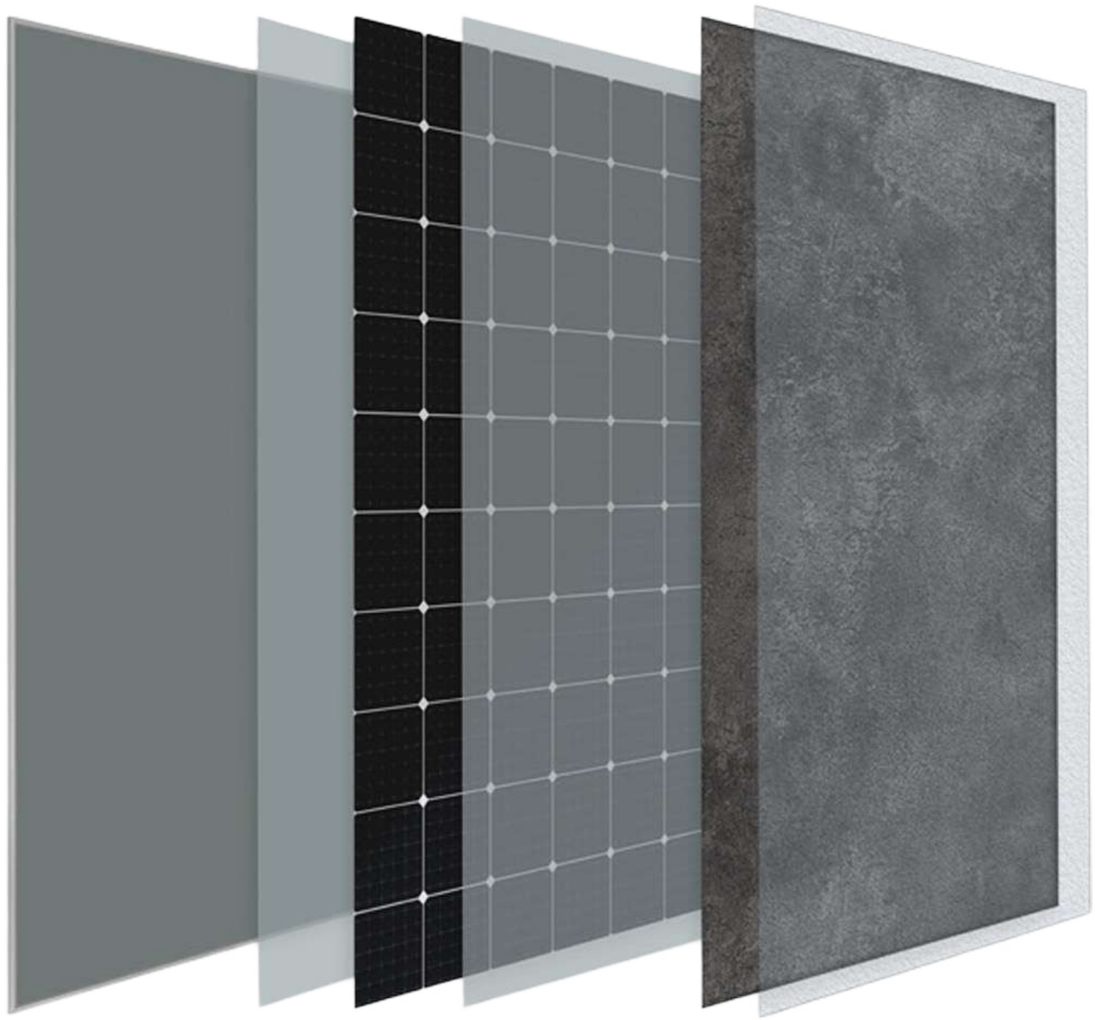








The next generation energy surface



Layer 3
Back glass

Back float clear glass 4mm, most of time with black color.

Layer 2
Encapsulant + Cells + Encapsulant

M6 HC da 166x83 Back Contact Invisible ribbon black colour with JB IP 67 - connector MC4.

Layer 1
Front glass + tactile surface

Front glass 4mm, tempered, edge grinded, corners cropped with coating.

Maximum efficiency

225 Wp/sqm
Maximum Power / Watt peak

96.9%
Up to efficiency
(compared to a PV panel)

30+
Years of full power lifetime. After 30 years, energy productivity could decrease by up to 20%

1250h
Of solar transmittance,
Δ E ≤ 0,001

5000h
Of solar transmittance,
Δ E ≤ 0,002

250h
Of solar transmittance,
Δ E ≤ 0,001



Customization of Dimension & Shape



Facade

Cover the entire building facade without aesthetic or structural limits. From the infinite permutation ofcolors, dimensions and finishes, freelycreate your energy facade.

Free dimensions
Max: 2000 x 3000 mm
Min: 200 x 300 mm

Free collections
All Material Collections
All Essence Collections



Puzzle

A modular system of building blocks to compose your architectural facade. From the combination of selected colors, dimensions and finishes, create your facadecomposition.

3 prefixed dimensions
730 x 1100 mm / 360 x 1100 mm / 360 x 545 mm

4 selected colors
Natural black / Silver gray / Orange brown / Traffic white

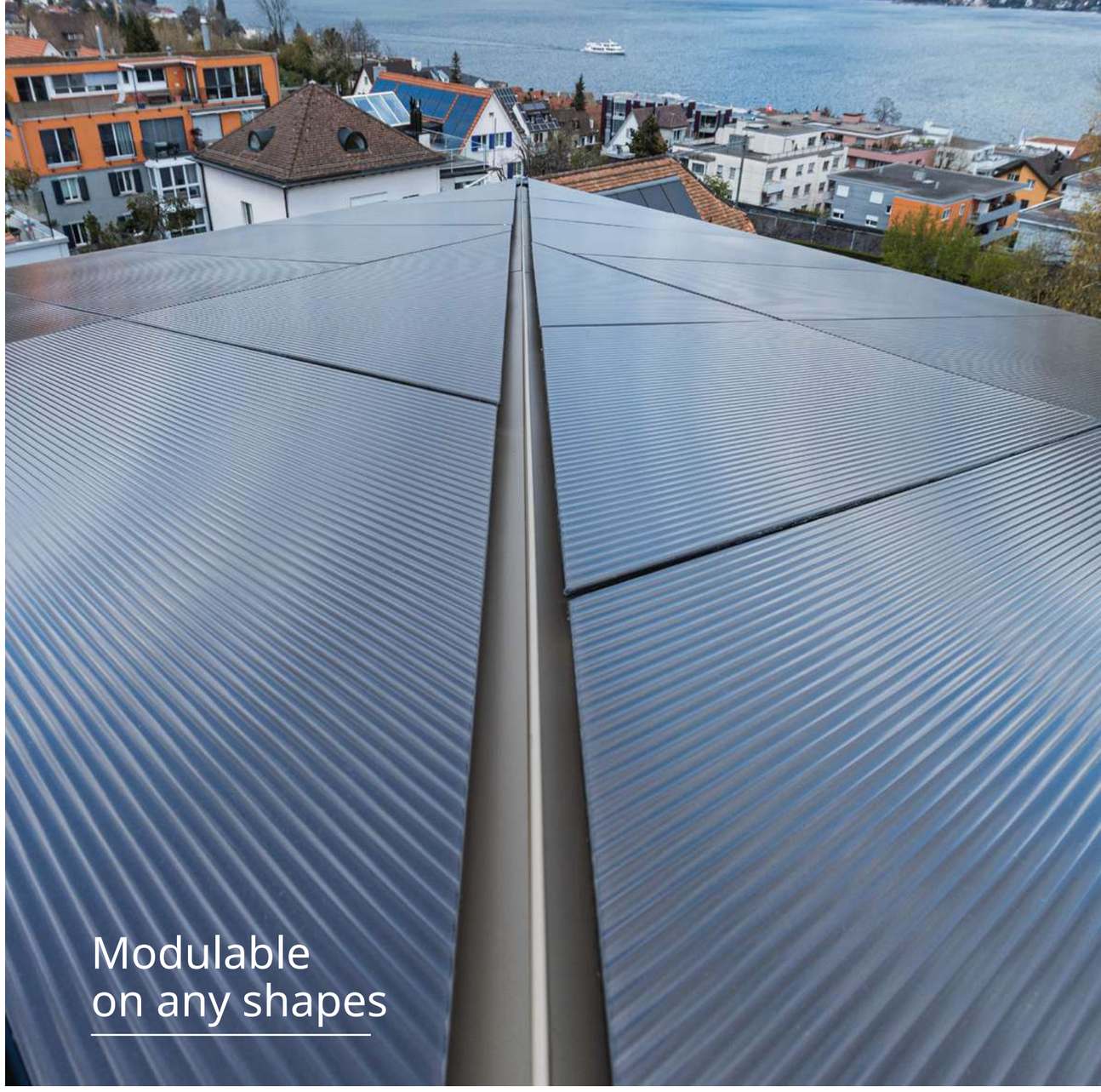


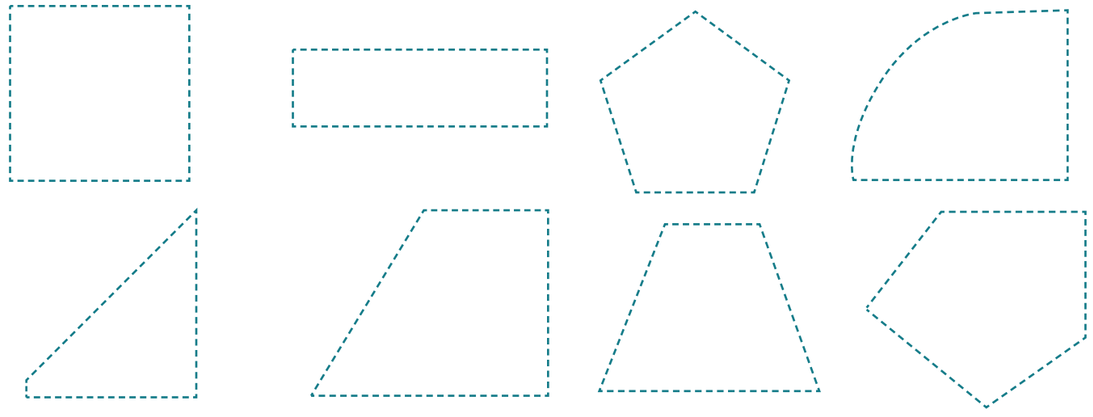
Tile

Transform every roof into an energy surface perfectly integrated into the building. From the combination of selected colors, dimensions and finishes, create your energy roof.

4 prefixed dimensions
1376 x 820 mm / 1376 x 450 mm / 686,5 x 820 mm / 686,5 x 450 mm

5 selected colors
Natural black / Silver gray / Orange brown / Mahogany brown / Oxide red





Versatile Mounting for Facades and Roofs

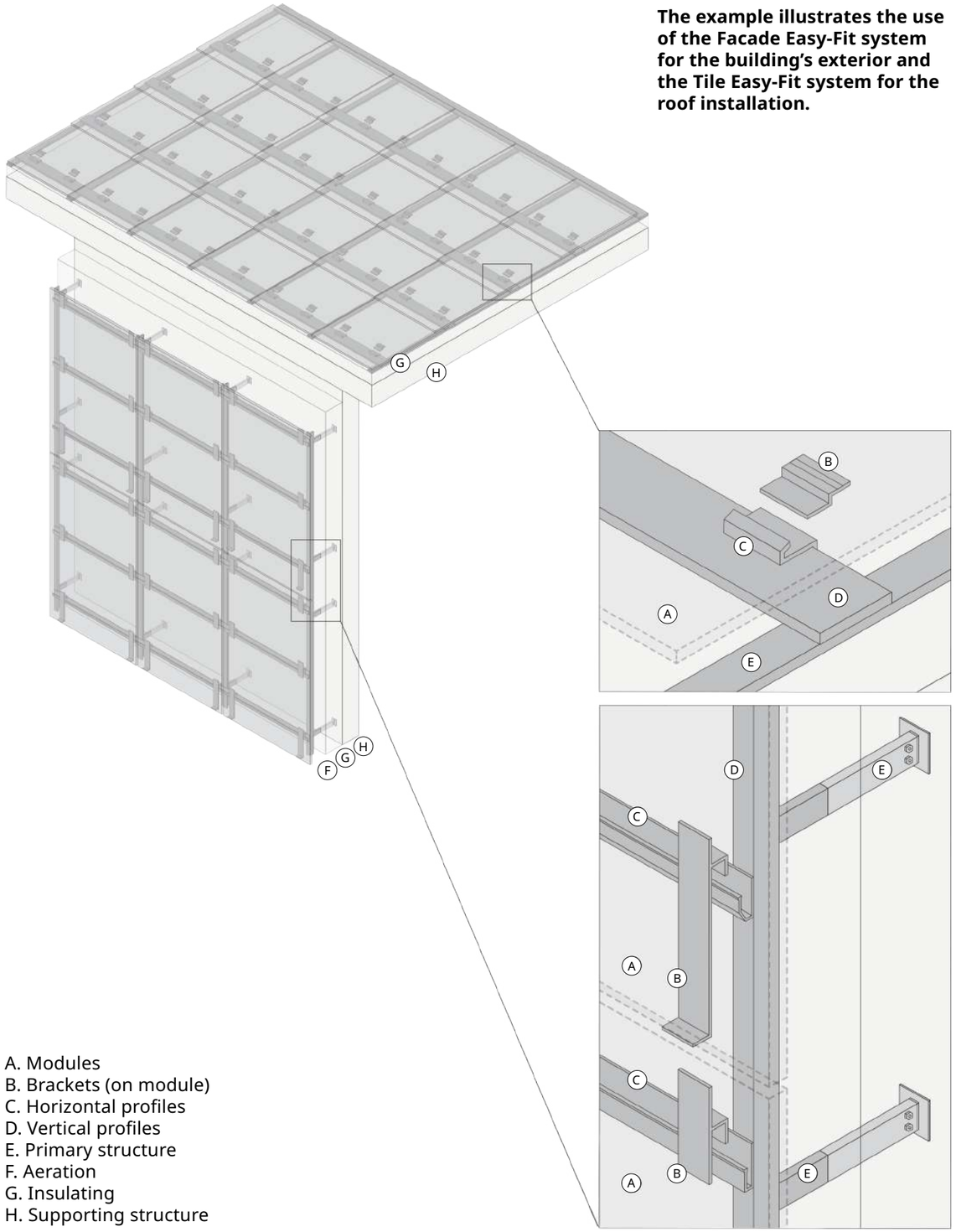
The Easy-Fit system provides a quick and flexible way to attach modules of any size or style on both facades and roofs. It is designed to ease the assembly process while also allowing for the most creative and customizable design options.

The concept enables modular surfaces to be readily built utilizing a clever hook mechanism, with some hooks embedded directly into the back of the panel (B) and others fixed on the supporting structure (C). Horizontal profiles are connected to vertical profiles, which are all held together by the Primary Structure (E), assuring elevation and overall stability.

Ventilation space (F), insulation type (G), and thickness are all totally configurable depending on customer requirements, resulting in bespoke performance for every project.

There are three variations of the Easy-Fit system available. Facade Easy-Fit, Puzzle Easy-Fit, and Tile Easy-Fit all operate on the same concept, but with distinct characteristics to meet different aesthetic and technical requirements.





The example illustrates the use of the Facade Easy-Fit system for the building's exterior and the Tile Easy-Fit system for the roof installation.

A. Modules
B. Brackets (on module)
C. Horizontal profiles
D. Vertical profiles
E. Primary structure
F. Aeration
G. Insulating
H. Supporting structure

Facade
Easy-Fit system

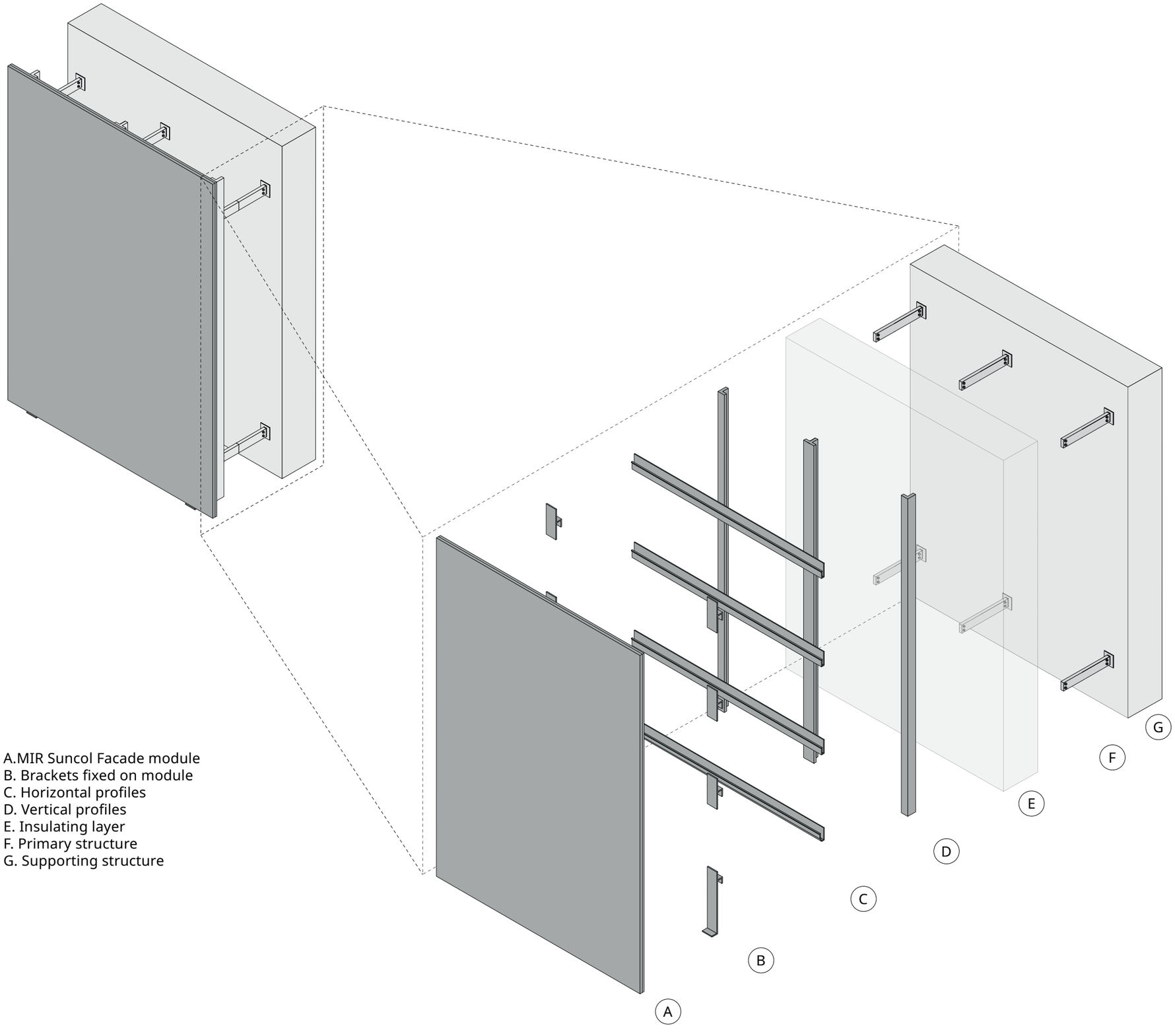
We developed the Facade Easy-Fitsystem to ensure easy and simple installation.

The Facade system allows you to freely compose the facade through a system of hooks applied partly directly on the back of the panel (B. Bracket) and partly on the structure (C. Horizontal profile).

Panel with Brackets is embedded in the Horizontal Profiles, which are fixed to the Vertical Profiles (D.), all supported by the Primary Structure (E.).

This give lift and stability making the whole structure solid. Type of insulating layer (F.) and its thickness are chosen by the customer. The Primary Structure is available in different lengths and types and is fixed to the Supporting Structure of the building

A.MIR Suncol Facade module
B. Brackets fixed on module
C. Horizontal profiles
D. Vertical profiles
E. Insulating layer
F. Primary structure
G. Supporting structure



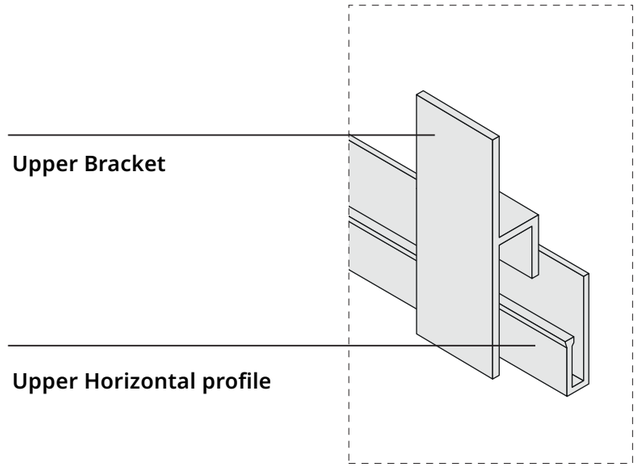
Fixing panel

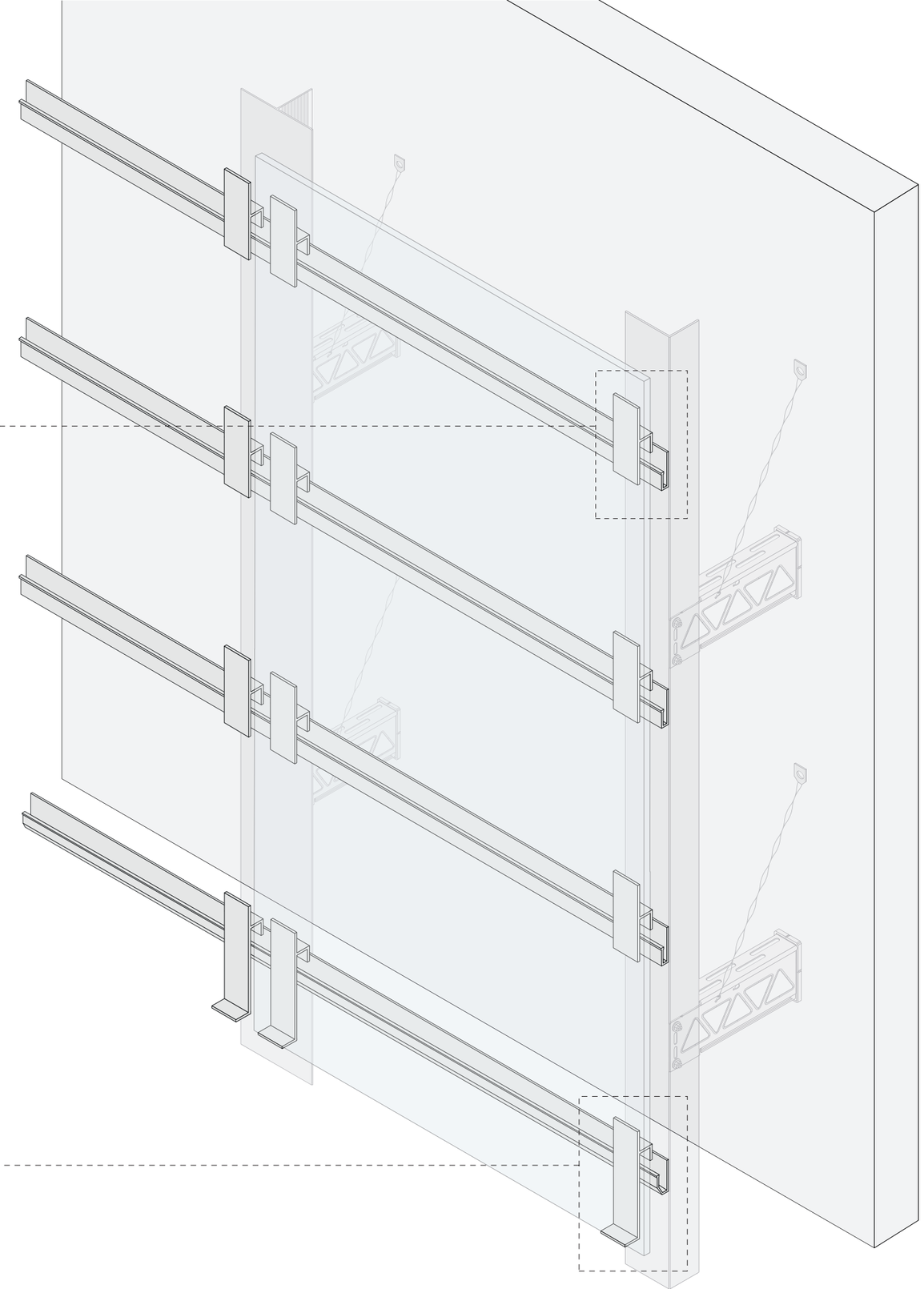
The MIR Suncol Facade Easy-Fit system structure is composed of various elements capable of making the entire structure solid and functional.

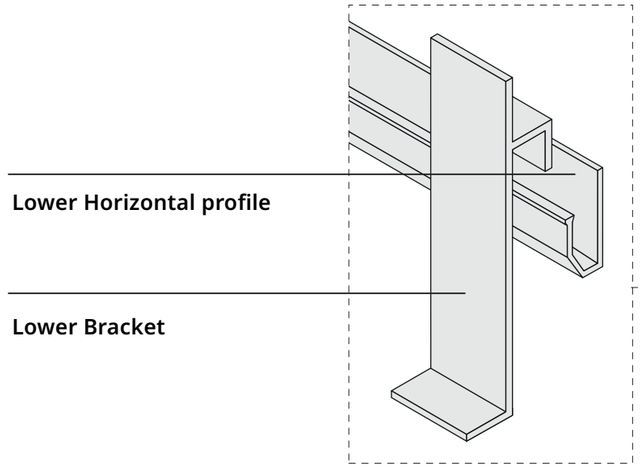
Starting from the outside, the Brackets (upper and lower) are fixed and glued directly to the back of the MIR Suncol Facade panel. Depending on the desired size, the number of brackets installed may vary. The Brackets are matched with the Horizontal profiles ensuring stability and ease of replacement.

Both the Brackets and Horizontal profiles are distinguished between Upper and Lower, both in form and function. The lower ones have the task of supporting the panel by fixing itself in the lower part while the upper ones are distributed over the entire perimeter of the panel.

Horizontal Profiles are fixed to Vertical Profiles which guarantee their stability and resistance over time. In turn, Vertical profiles are supported by the Primary structure, available in different models and lengths, directly fixed in the Supporting structure of the building.

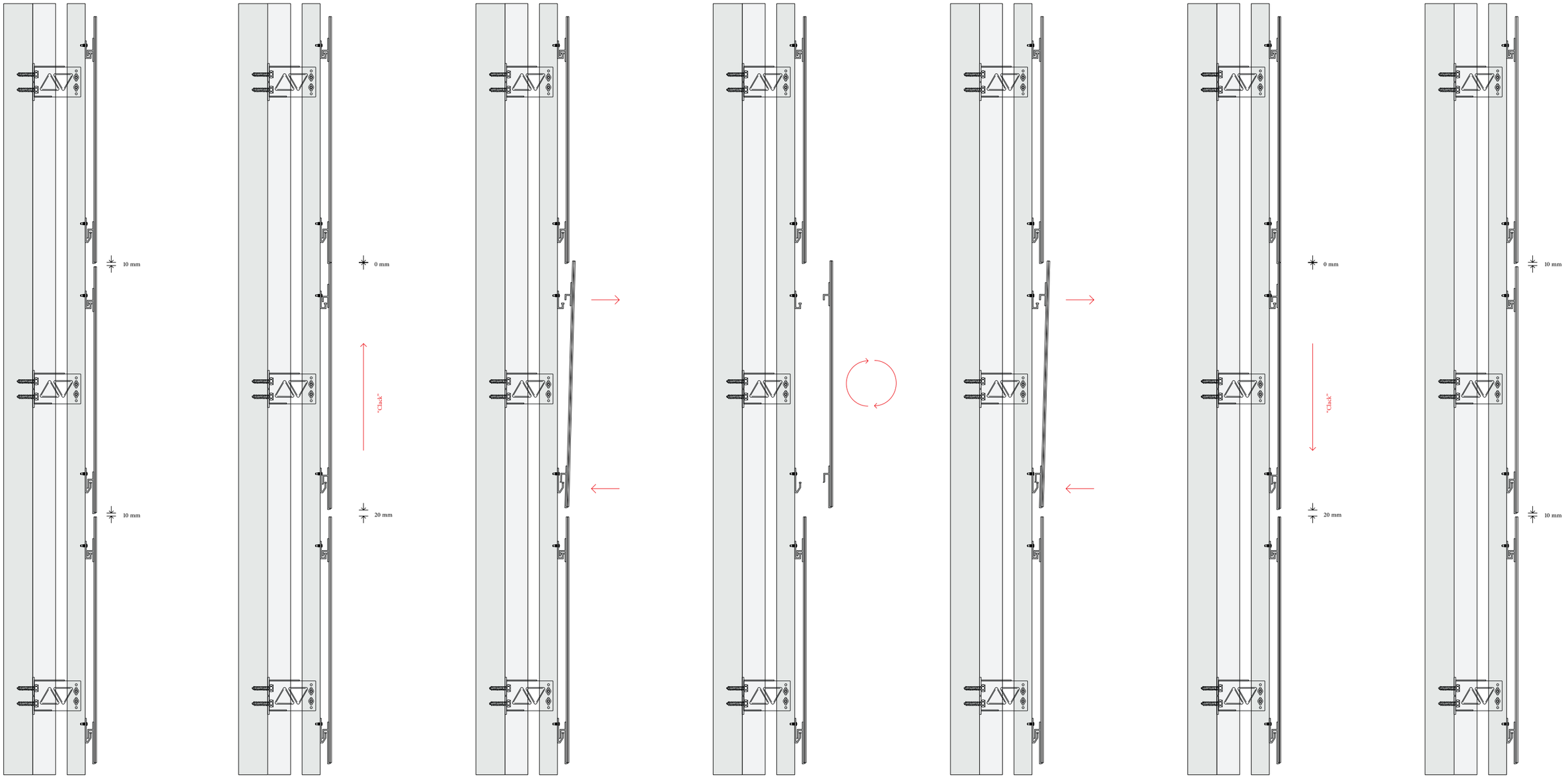






Panel replacement

The replacement of the MIR Suncol Facade panel takes place in a simple and intuitive way thanks to the MIR Suncol Easy-Fit system. After identifying the panel to be replaced, the space between the two panels (in standard conditions of 10 mm) allows you to push the surface of the panel to be replaced upwards until you hear a “clack”: the Brackets are released from the horizontal profiles. By applying pressure to the lower part, the panel tilts allowing the module to be extracted from the facade. Once removed, replace the panel and follow the steps in reverse order.







Dimensions

A broad range of panel diameters are available to meet varied architectural needs, transforming whole structures into active, energy-generating surfaces. Options include big panels measuring 2000 x 3000 mm and smaller forms as small as 200 x 300 mm. Additionally, bespoke sizes can be given upon request via the facade solution.

While the facade system allows for custom scaling, other alternatives, such as the Puzzle and Tile variations, are available in standard proportions. This strategy simplifies production, saving substantial time and money.

For unique facade layouts, our staff will assess your desired dimensions and propose the best surface area for solar cell integration. This guarantees that your system produces as much energy as feasible.

Complex Puzzle Compositions

For those who value geometric precision and design versatility, the Puzzle system provides panels in three carefully selected standard dimensions. These predefined sizes are engineered to support a wide variety of geometric arrangements across nearly any facade type. With just three module formats, it’s possible to create limitless and distinctive compositions, adding both structure and creativity to architectural surfaces.

Tile System Compositions

Tile modules are designed for linear, uniform installation by placing identical panels side by side. Each panel is spaced 3 mm apart horizontally and overlaps the panel below by 80 mm. This configuration creates a seamless, continuous surface while effectively preventing the infiltration of atmospheric elements by directing water and debris downward and away from the structure.

From large-scale panels to small modules, designed to cover the whole architectural exterior with consistent accuracy.

Minimum dimension
200 x 300 mm

All size between, up to

Maximum dimension
2000 x 3000 mm

Photovoltaic cell - M6 HC
da 166x83 mm

Material Delivery & Logistics Timelines

Understanding that project schedules are critical, our dual-manufacturing strategy ensures that we can meet strict deadlines without compromising on quality. By operating distinct production hubs, we offer highly adaptable supply chain solutions tailored to the scale, customization level, and geographic location of your development.

Flexible Lead Times Designed for Global & Local Project Execution

Domestic Manufacturing
Mangalore SEZ Factory, India

Timeline: 1 – 2 Weeks

Localizing manufacturing within the MSEZ hub allows us to bypass long-distance shipping delays and complex import procedures. This facility is optimized for rapid turnaround, making it the ideal choice for developers operating on tight construction schedules across South Asia.

International Production
Italy Factory

Timeline: 2 – 3 Months

Our Italian facility represents the pinnacle of European engineering and design precision. The 2 to 3-month timeline accounts for meticulous manufacturing processes, rigorous quality testing of custom colorations, and international freight logistics..



+ Residential Sector

Private luxury villas, multi-family housing complexes, and high-rise residential towers.

+ Commercial & Corporate

Office headquarters, corporate business parks, retail malls, and high-rise curtain walls.

+ Industrial & Logistics Parks

Manufacturing facilities, warehousing complexes, data centers, and distribution hubs.

+ Transportation & Urban Infrastructure

Office headquarters, corporate business parks, retail malls, and high-rise curtain walls.

+ Hospitality & Leisure

Premium hotels, luxury eco-resorts, large-scale convention centers, and sports arenas.

+ Urban Regeneration & Heritage Retrofits

Renovation of older buildings, historical city centers, and heritage projects.

+ Government & Civic Infrastructure

Administrative headquarters, smart city master plans, public libraries, and municipal centers.

+ Institutional & Healthcare Facilities

Universities, schools, research centers, public hospitals, and sprawling healthcare campuses.

Target Applications & Sectors for BIPV

Beyond basic rooftop installations, Building-Integrated Photovoltaics (BIPV) completely replaces traditional building materials such as standard cladding, curtain wall glass, and ceramic tiles. By transforming passive building envelopes into active energy generators, MIR Suncol BIPV provides a comprehensive solution across a wide spectrum of real estate and infrastructure developments.

Inspired by Nature, Designed for Architecture

The Material Collection has 18 distinct textures that embody the spirit of nature, allowing architects to express their creativity. Each texture is further improved using modern glass surface finishing procedures, which provide depth and material richness to each panel.

To guarantee the best visual and tactile effect, each texture is advised with a surface finish. This collection, designed to fulfill the greatest architectural requirements, elegantly integrates natural beauty into urban and city settings, allowing structures to fit with their environment.

Brown
Calcareous Textures

Cod: MC-09

Facade Collection

Quality

COLOR GUARANTEED
Color decay in 10 year, Δ E < 3

COLOR GUARANTEED
Sample vs mock-up, Δ E < 3

PERFORMANCE
Linear decay ≤ 80% in 25 year

Collections Overview

Ecological coloring

Select from a diverse palette of material textures and solid colors to seamlessly tailor your project to the urban environment. The choice of collections may vary depending on the product you select:

1) Facade: You have the freedomto express your creativity with all 36 colorsavailable, offering maximum flexibility in design.

2) Puzzle and Tile (Standard Version): These products offer a curated selection of colors for a more focused design approach.

Depending on your chosen collection, Suncol also recommends specific surface finishes. These finishes, much like the material collections, are adept at enhancing the natural grain and textures, contributing to thevisual appeal of your project. This level of customization empowers you to harmonize your architectural design with the urban context while achieving the desired aesthetic and textural effects.



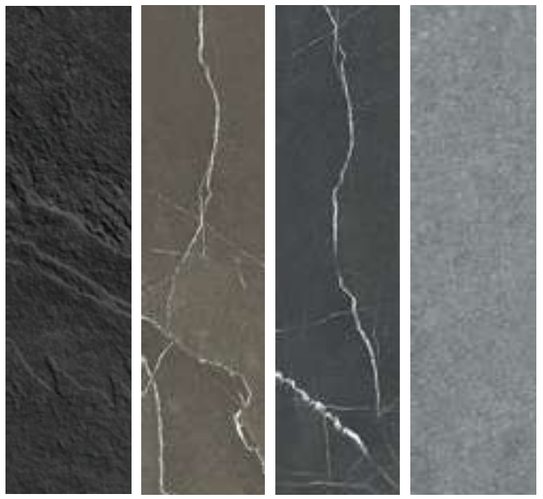
Metal textures



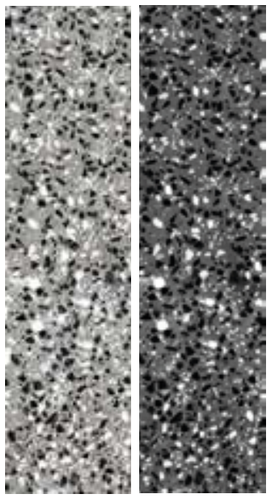
Calcareous textures



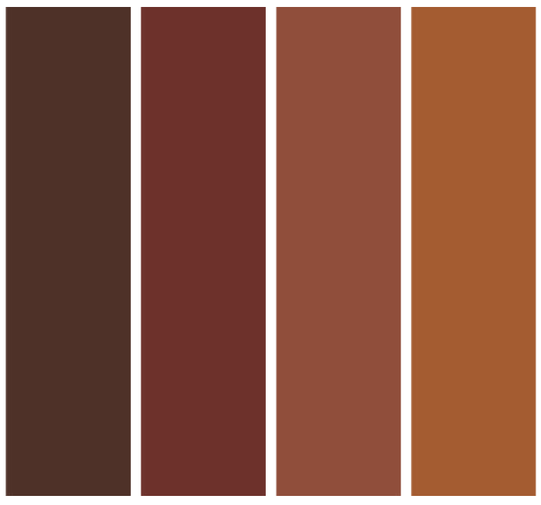
Concrete textures



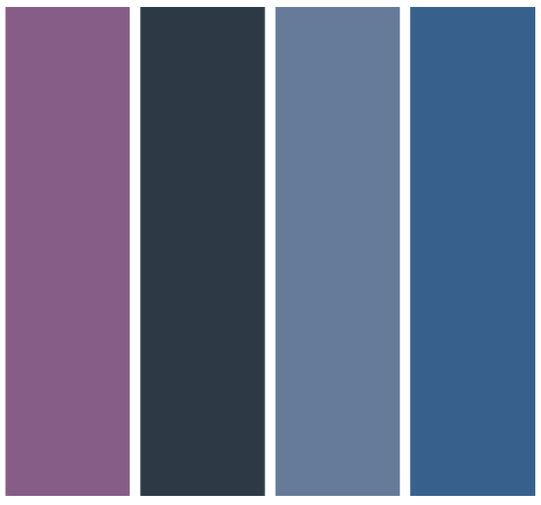
Stone textures



Granite textures



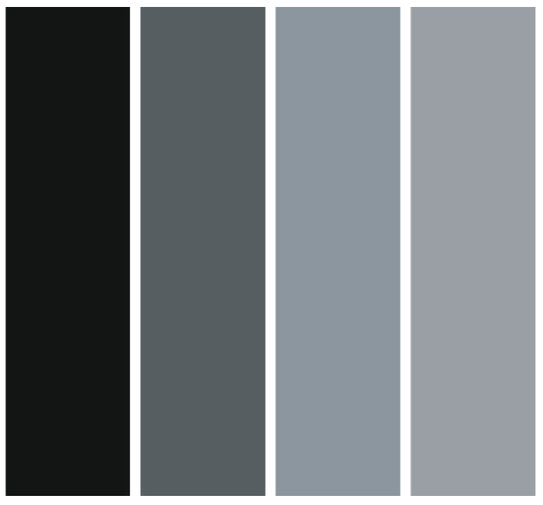
Brown colors



Blue colors



Green colors



Gray colors

White colors

Material Collection

Burnished
Cod: MM-07

Metal textures



Bronze
Cod: MM-08

Metal textures



Russet
Cod: MM-05

Metal textures



BCorten
Cod: MM-06

Metal textures



Gray
Cod: MC-10

Calcareous textures



Taupe
Cod: MC-12

Calcareous textures



Material Collection

Cream
Cod: MC-11

Calcareous textures



Brown
Cod: MC-09

Calcareous textures



Worn sand
Cod: MC-04

Calcareous textures



Used gray
Cod: MC-01

Concrete textures



Vintage taupe
Cod: MC-02

Concrete textures



Worked charcoal
Cod: MC-03

Concrete textures



Material Collection

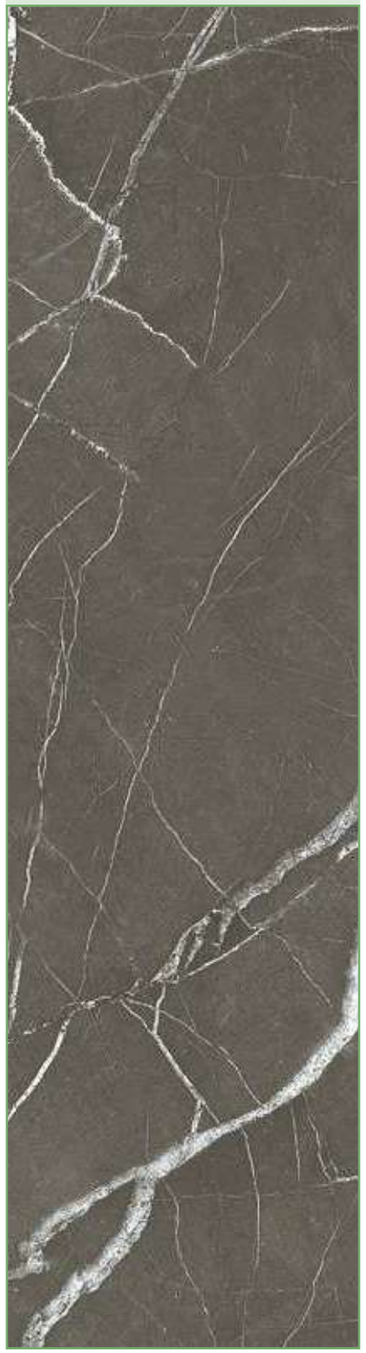
Slate
Cod: MS-13

Stone textures



Piasentina ocher
Cod: MS-16

Stone textures



Piasentina gray
Cod: MS-15

Stone textures



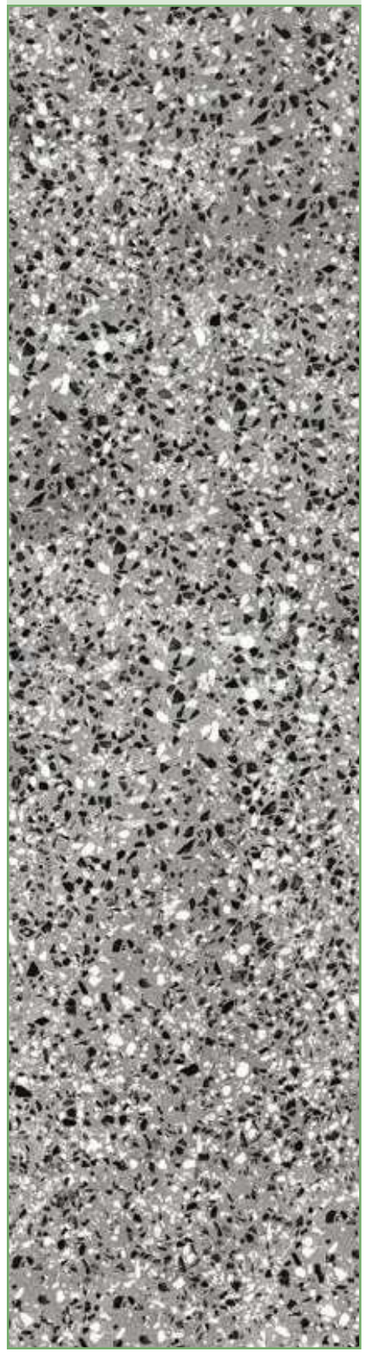
Graystone
Cod: MS-14

Stone textures



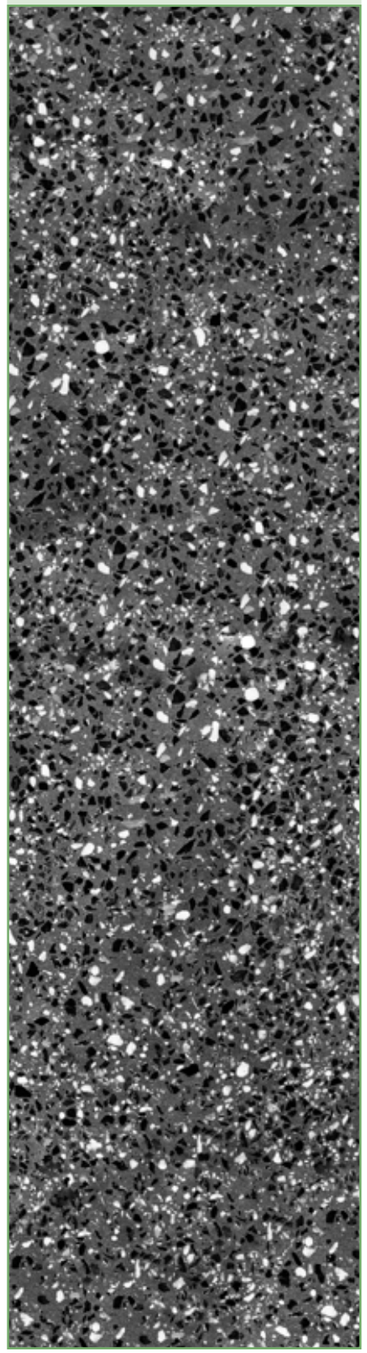
Vintage gray
Cod: MS-18

Stone textures



Vintage dark
Cod: MS-17

Stone textures



Essence Collection

Mahogany brown
Cod: EB-8016

Brown colors

Oxide red
Cod: ER-3009

Brown colors

Copper brown
Cod: EB-8004

Brown colors

Orange brown
Cod: EB-8023

Brown colors

Reddish lilac
Cod: EV-4001

Blue colors

Dove blue
Cod: EB-5014

Blue colors

Essence Collection

Bright blue
Cod: EB-5007

Blue colors

Grayish blue
Cod: EB-5008

Blue colors

Blackish green
Cod: EG-6012

Green colors

Olive green
Cod: EG-6003

Green colors

Olive gray
Cod: EG-7002

Green colors

Olive yellow
Cod: EY-1020

Green colors

Essence Collection

Graphite gray
Cod: EG-7024

Gray colors

Basalt gray
Cod: EG-7012

Gray colors

Silver gray
Cod: EG-7001

Gray colors

Window gray
Cod: EG-7040

Gray colors

Traffic white
Cod: EW-9016

White colors

Signal white
Cod: EW-9003

White colors

NATURAL

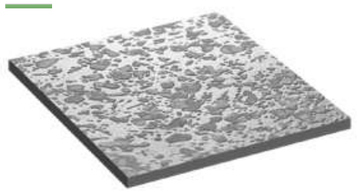
A 3D surface, tactile and textured, to enhance the veins of the natural world. (Available in Granite, Corten and Bush hammered effects)

CANNETTE

Wavy surface capable of producing interesting light effects. (Available in glossy, soft touch and matte effects)

FLAT

The classic and traditional smooth glass surface. (Available in glossy, soft touchand matte effects)



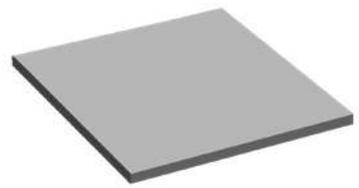
Natural
granite effect

Recommended for
Granite textures



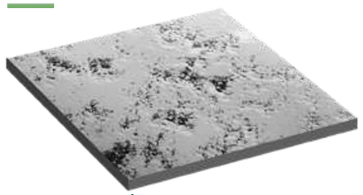
Cannette
Glossy effect

Recommended for
Essence colors



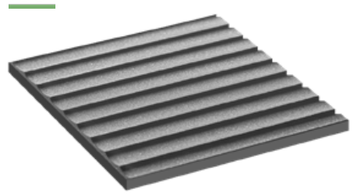
Flat
Glossy effect

Recommended for
Essence colors



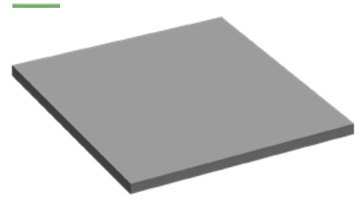
Natural
Corten effect

Recommended for Metal and
Concrete textures



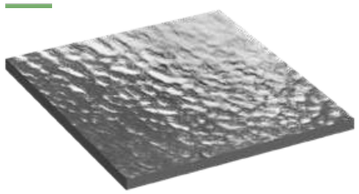
Cannette
Soft touch effect

Cannette
Matte effect



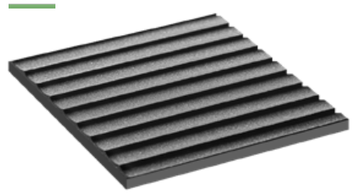
Flat
Soft touch effect

Recommended for
Essence colors



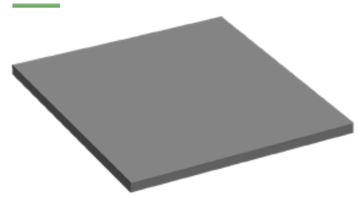
Natural
Bush hammered effect

Recommende for Calcareous
and Stone textures



Cannette
Glossy effect

Recommended for
Essence colors



Flat
Matte effect

Recommended for
Essence colors

Quality and features

PRODUCT LIFE	FACTORY DEFECTS	PERFORMANCE	COLOR GUARANTEED
Over 30 years	12 years	Linear decay ≤ 80% in 25 years	Δ E < 3

CERTIFICATIONS

Our certification authorities:

ISO: LL-C Certification

IEC: Kiwa Certifications

ISO 9001:2015 · ISO 14001:2015 · ISO 45001:2018 · IEC 61730 · IEC 61215 · CE UNI EN 12600 · CE UNI EN ISO 12543

TECHNICAL FEATURES

DURABILITY

We lengthened the MIR Suncol surface life cycle. We guarantee it for 30 years.

ENERGY SAVING

MIR Suncol allows you to collect and store free green energy.

PAYBACK TIME

MIR Suncol allows a quick return on investment. Payback is approximately after 10 years.

DIMENSIONAL STABILITY

MIR Suncol is not subject to dimensional variations as it has a low coefficient of thermal expansion.

EFFICIENCY

MIR Suncol surface combines the best photovoltaic technology for maximum performance.

RELIABILITY

MIR Suncol technology ensures uncompromising performance and certain results.

SAFETY FEATURES

IMPACT RESISTANT

MIR Suncol Surface porosity is average 0,1% and it does not absorb water.

DUST & SAND RESISTANCE

The surface porosity of MIR Suncol is on average 0.1% and does not absorb water.

FIRE CLASS A

The surface porosity of MIR Suncol is on average 0.1% and does not absorb water.

HEAT RESISTANT

The MIR Suncol technology remains efficient even in extreme heat conditions, up to 80°C.

THERMAL RESISTANT

MIR Suncol surface is resistant to rapid climate changes and thermal shocks.

FREEZE RESISTANT

The MIR Suncol technology remains efficient even in extreme heat conditions, up to -20°C.

General Description

This specially designed low-iron glass is ideal for applications in both photovoltaic and solar thermal systems, offering excellent transparency and energy transmission.

It is available in a patterned surface finish (mat/mat), enhancing light diffusion while maintaining aesthetic appeal. The standard thickness offered is 3.2 mm, making it well-suited for a wide range of solar integration projects.

CHEMICAL COMPOSITION

Silicon dioxide (SIO2)
68-73%

Sodium oxide(Na2O)
9-16%

Calcium oxide (CaO)
5-13%

Magnesium oxide (MgO)
0- 6%

Aluminum oxide (Al2O3)
0- 3%

Iron oxide (Fe2O3)
<0,014%

MECHANICAL CHARACTERISTICS

Density (at 18°C)
(ρ) - **2500 kg/m³**

Young's modulus
(E) - **7x1010 Pa**

Poisson's ratio
(μ) - **0,2**

Specific heat capacity
(c) - **0,72 x 103 J/(kg·K)**

Nominal value of average coefficient of linear expansion between 20°C and 300°C (α) **9 x 10-6 K-1**

Thermal conductivity
(λ) - **1 W/(m·K)**

PHYSICAL COMPOSITION

Maximum snow load
5400 Pa

Maximum load tested
8000 Pa

Maximum wind speed
130 Km/h

Hail
G4 Class; Ø 40 mm; 82 Km/h

Reaction to fire
Class 1

Thickness
8 mm (0.5mm / +1.5mm)

Front Glass
Thickness 3.2 mm

Back Glass
Thickness 3.2 mm

Cells
Poli-crystalline cells
M6 HC da 166x83
High efficiency

Encapsulant
EVA Solar

Junction Box
JB IP 67

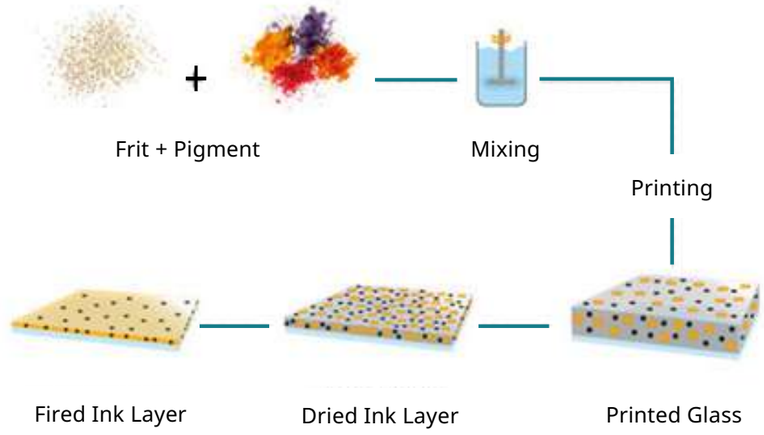
Connector Features
MC4 original

Cable Characteristics
Ø 4 mm2
length 800 mm

COATING OVER THE TIME

A specialized mineral coating is applied to one side of the glass and then vitrified through high-temperature curing, ensuring exceptional durability.

During this process, the color becomes integrated directly into the glass mass, resulting in a unified, long-lasting finish. This method guarantees that the color remains stable and unchanged over time, even under prolonged exposure to environmental elements.



UV TEST

After more than 5000 hours of testing, corresponding to almost 20 years of real-world exposure in Central European circumstances, *there was virtually no change in solar, light, UV, and PV transmittance or color stability (Lab)**, proving long-term performance and efficiency.

Material collection data Essence collection data

Test Type	250 hours	1250 hours	2500 hours	5000 hours
Solar transmittance AM1.5, ISO9845	ΔE ≤ 0.001 / ΔE ≤ 0.001	ΔE ≤ 0.001 / ΔE ≤ 0.001	ΔE ≤ 0.001 / ΔE ≤ 0.001	ΔE ≤ 0.001 / ΔE ≤ 0.002
Light transmittance D65, EN410	ΔE ≤ 0.003 / ΔE ≤ 0.001	ΔE ≤ 0.004 / ΔE ≤ 0.001	ΔE ≤ 0.005 / ΔE ≤ 0.001	ΔE ≤ 0.005 / ΔE ≤ 0.003
UV transmittance ISO9050	ΔE ≤ 0.001 / ΔE ≤ 0.025	ΔE ≤ 0.001 / ΔE ≤ 0.024	ΔE ≤ 0.001 / ΔE ≤ 0.024	ΔE ≤ 0.001 / ΔE ≤ 0.028
PV transmittance AM1.5* poly-Si	ΔE ≤ 0.001 / ΔE ≤ 0.0001	ΔE ≤ 0.001 / ΔE ≤ 0.0001	ΔE ≤ 0.002 / ΔE ≤ 0.0001	ΔE ≤ 0.001 / ΔE ≤ 0.001
Photosynthetically active radiation	ΔE ≤ 0.002 / ΔE ≤ 0.001	ΔE ≤ 0.003 / ΔE ≤ 0.002	ΔE ≤ 0.004 / ΔE ≤ 0.001	ΔE ≤ 0.004 / ΔE ≤ 0.003
Color L*a*b*				
L*	ΔL ≤ 0.3 / ΔL ≤ 0.10	ΔL ≤ 0.4 / ΔL ≤ 0.10	ΔL ≤ 0.4 / ΔL ≤ 0.10	ΔL ≤ 0.4 / ΔL ≤ 0.2
a*	Δa ≤ 0.12 / Δa ≤ 0.04	Δa ≤ 0.13 / Δa ≤ 0.04	Δa ≤ 0.14 / Δa ≤ 0.01	Δa ≤ 0.12 / Δa ≤ 0.001
b*	Δb ≤ 0.01 / Δb ≤ 0.21	Δb ≤ 0.17 / Δb ≤ 0.20	Δb ≤ 0.24 / Δb ≤ 0.23	Δb ≤ 0.25 / Δb ≤ 0.25

The electrical data comes from laboratory tests and will be confirmed by post-production tests.

Electrical data examples

Essence Collection
Graphite gray color

Parameter	Value per sqm
Vmp (V)	21.10
Imp (A)	6.98
Power (Wp)	145.00
Voc (V)	24.79
Isc (A)	7.38
Temp. Coeff. Isc (%/°C)	0.05
Temp. Coeff. Voc (%/°C)	-0.29
Temp. Coeff. Pmax (%/°C)	-0.40

Material Collection
Worked charcoal texture

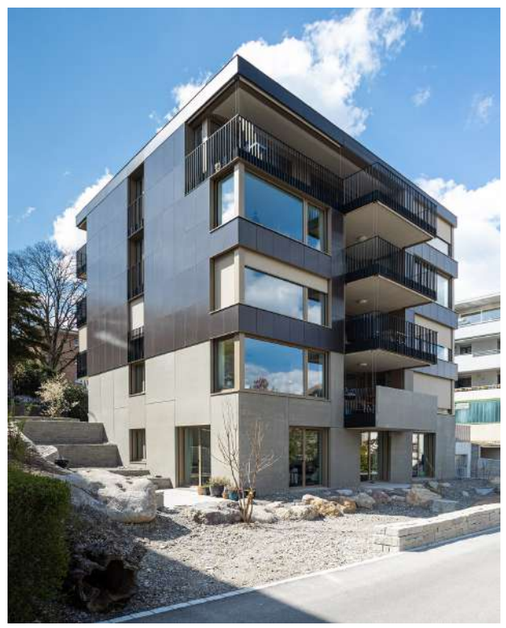
Parameter	Value
Vmp (V)	21.10
Imp (A)	6.87
Power (Wp)	145.00
Voc (V)	24.79
Isc (A)	7.26
Temp. Coeff. Isc (%/°C)	0.05
Temp. Coeff. Voc (%/°C)	-0.29
Temp. Coeff. Pmax (%/°C)	-0.40

MIR Suncol Facade

Here two sample colors are selected to show the electrical efficiency parameters of all colors and textures. Graphite gray color for theessence collection available on all MIR Suncol products and the Worked charcoal texture normally available only for MIR Suncol Facade.

Ask our experts for complete electrical data for every color or texture collections.

Notes:
The electrical data comes from laboratory tests and will be confirmed by post production tests. The electrical specifications are measured under STC conditions (1000 W/sqm, 1.5 Air Mass Spectrum, cells temperature 25°C); the reference module used to set our Sun Simulator has been calibrated by SUPSI University (Switzerland). The accuracy of the given figures is a function of the calibration tolerance of the reference module and of the guaranteed performances of our Sun Simulator.



GEOMETRICAL TOLERANCES

If not requested in a different way by the client, we use following tolerances:

Glass thickness:
+/- 0.2 mm

Length and width:
+/- 1,5 mm

Angularity
(difference between length of both diagonals):
2 mm

THERMAL TOUGHENED GLASS

The mentioned glass of this specification can, if requested by the client, be thermal toughened. The glass then has following mechanical and physical properties.

Flatness:
Local bow: 0.7mm/300mm

Bending strength:
Solar glass ≥ 90 N/mm²

GLASS QUALITY (BUBBLES, SCRATCHES, INCLUSIONS) sqm

The visual inspection of the glass is done in a frontal position with a distance of 1,5m for 20 seconds with a black background (distance between glass and background about 10 cm) with direct natural light.

Eventual defects can be classified according to the table:

Longitudinal bubbles max. width 1 mm	**Round bubbles**	**Scratches max. width 1 mm**
Length < 5 mm max. 4 pieces 5 < Length < 10 mm max. 1 pieces	Diameter < 0,3 mm unlimited 0,3 mm < Diam. < 1,0 mm max. 3 pieces Diameter > 1,0 mm max. 1 piece	Length > 10 mm, 1 piece

EDGES AND CORNERS

Edge processing	Fully grinded C-shape
Corner treatment	**Complete round grinded**

General warranty conditions

MATERIALS AND QUALITY OF EXECUTION

MIR guarantees that the modules are free from defects in material or workmanship under normal conditions of application, installation, use and service. If the product does not comply with this limited warranty, MIR unde takes, at its own discretion for a period ending 12 years (144 months)from the date of sale to the original purchaser/customer, to repair or replace the product or refund the purchase price. Repair, replacement or refund will be the only means of redress provided under this warranty. The color is guaranteed for a period of 10 (ten) years. The result compared to the value measured between and in the sheets or compared to the mock-up must be $\Delta E \leq 3$ outer glass side.

POWER OUTPUT

MIR guarantees for a period of 25 (twenty-five) years from the date of sale to the original purchaser/customer that the rated power under standard test conditions will remain at least 80% of the nameplate power of the module. Initial decay 3.0% the first year, followed by 0.68% per year, up to a minimum of 80% of the rated power of the module after 25 years.

At its own discretion, MIR undertakes to repair or replace the product, to refund the purchase price or to provide the purchaser with additional modules to make up for the power failure, provided that it is established that this degradation is due to defects in material or workmanship under normal conditions of installation, application and use. The relevant power rating specified by MIR is defined in the MIR product data sheet valid at the time of shipment. Standard Test Conditions (STC) means an irradiation level of 1000W/m^2, at 25ºC solar cell temperature and an AM 1.5 spectrum.

LIMITS AND CONDITIONS

Expect when otherwise declared in writing by MIR, the terms provided in these General Conditions of Limited Warranty shall be the sole means of legal recourse. The limited warranty referred to in this document does not apply to modules which, according to the sole discretion of MIR, have been subject to improper use, negligence, accident (among which, damage caused by natural disasters or other exceptional events), or which have been damaged because of actions not authorized by MIR such as, for example, misuse, tampering, alterations, repairs, other installations or incorrect applications or due to negligence in use, in storage, during transport, in handling and during routine maintenance.

The General Conditions of Limited Warranty do not, under any circumstances, cover costs connected to installation, removal, testing, packaging, transport or re-installation of the module, other costs regarding the fruition of the service of Limited Warranty or those connected to lost profit or earnings connected to performance or lack of performance of defectivemodules.

Modules repaired or substituted by MIR by means of recourse in Limited Warranty will not be entitled to further periods of warranty, in respect of the original duration regarding the original product purchased. The modules, components and products substituted in warranty become property of MIR .The terms of Limited Warranty of these General Conditions are applicable only for the original client/purchaser of the modules, respectively for any following owner of the original installation or site where the modules have been installed and have remained without undergoing any kind of alteration (except for those agreed to in writing together with MIR).

The conditions of this Limited Warranty supersede and replace any other limited warranty, expressed or implied, previously stipulated, including for information purposes only, the limited warranties regarding commercialization and fitness for particular purpose, use or application, and all other obligations or responsibility of MIR, except in the case that said Limited Warranty, obligations or responsibility are expressly agreed to in writing, signed and approved by MIR shall not be held responsible in any way for damage or injury caused to people or goods, or for other losses or injuries that should, in any way, come about or be connected in any way to the product, including for information purposes only, eventual defects of the module or connected to its use or installation. MIR shall not be held responsible in any way for emerging or particular damage, caused to accessories, howsoever caused. Any overall responsibility of MIR in relation to damage or other shall not exceed the price received by the retailer, per unit of product or for services provided or to be provided, as the case may require, object of the recourse or dispute.

If any part, provision or clause of these General Conditions of Limited Warranty, the sales conditions and the application of the same to persons or circumstances, are subsequently declared not valid, invalid or unenforceable, said conditions shall not concern the other parts, provisions, clauses or applications of the remaining terms and conditions, and shall
therefore be considered not invalid. Any recourse or dispute concerning this Limited Warranty shall be governed by and construed pursuant to Swiss laws.

Limited warranty services

Should the end user deem necessary to recourse to the conditions of Limited Warranty, he is required to notify in writing promptly and in advance to: MIR with regards to his request.

The client must submit a written request, including proof of purchase of the module, serial number and type of failure of the product. MIR shall determine, at its own discretion, the suitability of the request. MIR may request that the product, object of the recourse in Limited Warranty, be sent back to the factory, at the client's expense. If the product is-deemed faulty and is replaced without being sent back to MIR, the client must send to MIR the documentation proving that the product has been destroyed or disposed of correctly.

Centro POLIS Pregassona

This project in Pregassona is a public building finished in 2022 has one of the largest facade-integrated photovoltaic system in Ticino and has an installed capacity of about 170 kWp, corresponding to a surface area of over 1600 square meters.

Casa Anziani Canobbio

This project in Canobbio is a public building finished in 2025. Has an installed capacity of about 110 kWp, corresponding to a surface area of over 1000 square meters.

Zurich Argauerstrasse building

This project in Zurich is a private building finished in 2026. Has an installed capacity of about 160 kWp, corresponding to a surface area of over 900 square meters.



Scuolina Silvaplana

This project in Zurich is a private building finished in 2026. Has an installed capacity of about 55 kWp, corresponding to a surface area of over 450 square meters.



Making Global Headlines

Our unwavering commitment to sustainable urban regeneration and Net-Zero infrastructure continues to capture the attention of leading international media. MIR Group's visionary projects and strategic investments have been prominently featured across top-tier global publications.

> At MIR Group, we believe that true sustainability goes beyond infrastructure, it means investing directly in the social well-being and growth of the communities we touch.

MIR NetZero Vision 2047

Setting the Global Agenda

Sustainability is not just a metric; it is a movement. On February 20–21, 2026, we proudly hosted the inaugural MIR NetZero Vision 2047 summit at the T.M.A Pai International Convention Centre in Mangaluru.

Bringing together industry leaders, policymakers, environmental scientists, and architectural visionaries, the event laid the groundwork for actionable decarbonization strategies. It is our firm goal to host this summit annually, creating a collaborative global platform dedicated to achieving total carbon neutrality in infrastructure by the year 2047.

*Scan/Click to watch video

MIR NET ZERO VISION 2047
Building India's Carbon Neutral Future Cities.



SUNCOL BIPV

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