ArcelorMittal Construction

ArcelorMittal

Heliroof®

A Faster, Lighter, Smarter Solar Panel

Inspiring Smarter Building

Introducing Helioroof®

Discover the ultimate choice for pitched roofs (>10% or 5.7°).

Helioroof® is ArcelorMittal Construction's trailblazing solar roofing panel, which seamlessly integrates high-performance PIR panels and Topcon silicon solar cells. As a Building Integrated Photovoltaic (BIPV) solution, it offers lightweight design, accelerated installation and outstanding solar energy generation performance.

Thanks to intensive R&D and intelligent design, Helioroof® offers architects, installers and end users far superior performance compared to standard solar insulated roofs. As a product of the Helexio® Line project and winner of The smarter E AWARD 2024 for photovoltaics, Helioroof® boasts pioneering sustainability credentials that make it a perfect fit for low-carbon renovation projects.

The advantages of Helioroof® at a glance

- Unmatched power (from 310 Wp to 2,172 Wp, equivalent to 200 Wp/m² for solar laminate)
- Lightweight design (only requires an additional 2.5 kg/m² for solar generation)
- Economic viability
- Sustainability-focused and available in XCarb® recyclable and renewably produced steel
- Fast installation (especially occupied site) without impacting construction habits (succion cup lifting, standard panel screws)
- Flexible design (from 2 to 12meters)
- Waterproof guarantee
- Safest product (electrical cables are inside building)
- Durable even in aggressive environments
- Customised walking pathway from 0 to 2000mm at the bottom and top of Helioroof® panel
- Insulation thickness from 40 to 140mm to fit insulation needs (13,5kg to 17,5kg)

Read on to learn more about all the ways Helioroof® represents a landmark for solar integration.

A gamechanger in solar integration

Helioroof® is the first solar integration system of its kind in the world, and represents an innovation landmark that offers a host of advantages. Compared to traditional solar module installation, it's **faster, lighter and smarter**.

Faster

As a 'plug-in ready' panel, Helioroof® streamlines installation. Its electrical connection can be installed independently of roof installation, helping to make the **setup process 40% faster than traditional solar insulated roofs**. There's also no need to secure the roof twice, so installation can be completed in a single phase.

Through accelerated installation, Helioroof® **saves time and resources**, bringing greater efficiency to projects.

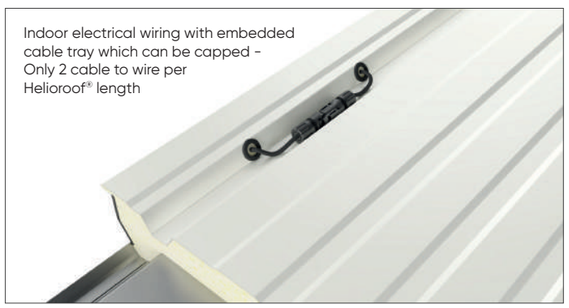
Lighter

Due to the absence of glass and mounting frames, **Helioroof® is 50% lighter** than standard solar insulated roofs. Solar cells' weight adds just 2.5kg/m² to sandwich panels, compared to 12kg/m² for conventional PV modules and their required substructure. Such a lightweight design **reduces the structural burden on buildings** and facilitates more versatile installations. Helioroof® is a key choice for renovation projects, and notably for asbestos removal.

Smarter

Helioroof®'s innovative technology delivers high performance, versatile application and long-lasting durability. **The panels can produce over 2kWp of solar energy**, making it an **industry leader in energy generation**. Additionally, its flexible design means single panel of different sizes can be designed to precisely fit any roof, offering adaptability and optimised solar energy production.

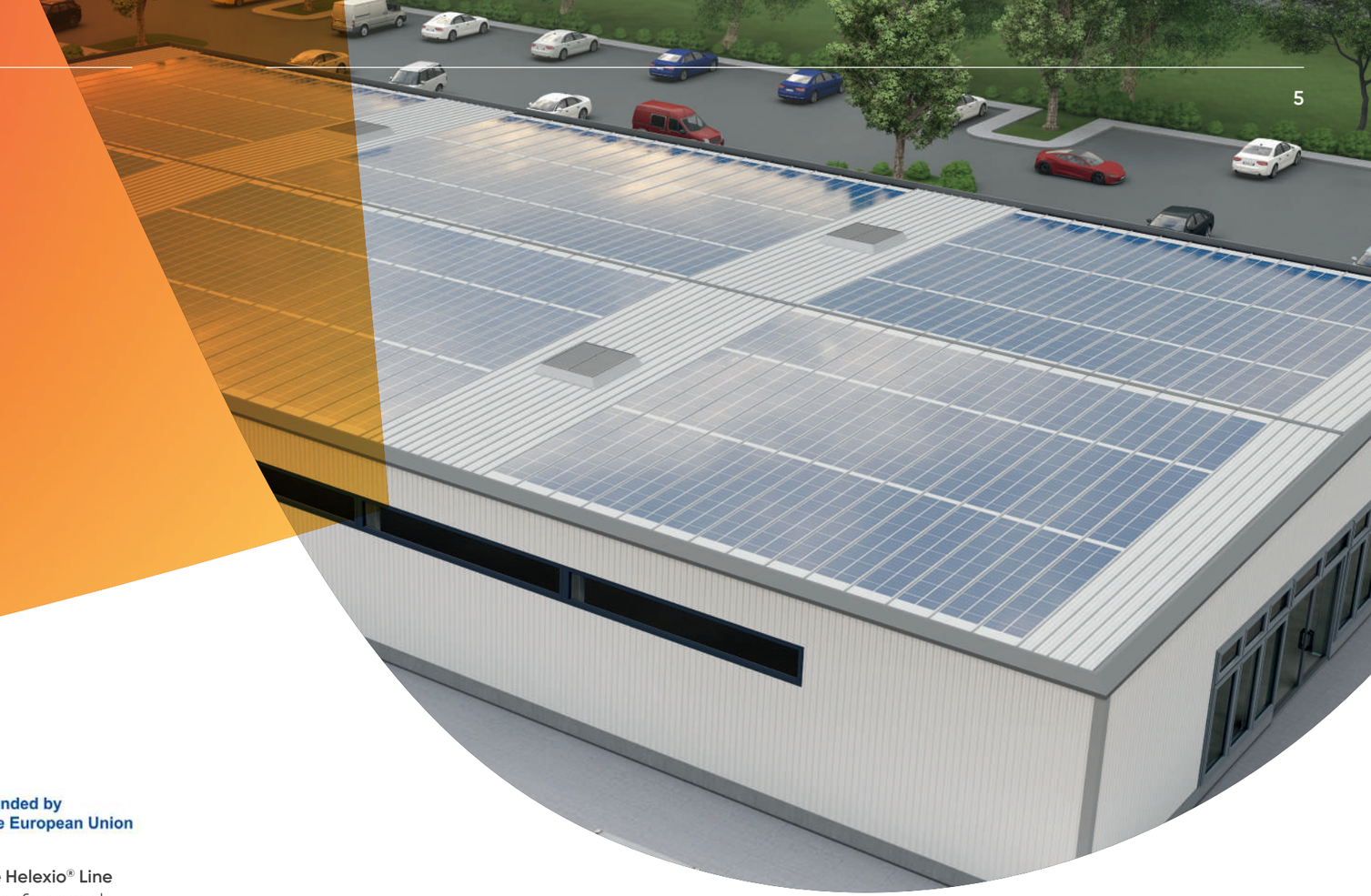
And, in a world-first for solar roofing panels, Helioroof®'s high performance is guaranteed for the long-run. Helioroof® comes with a 15-year product warranty which is extendable to 25-years, as well as a 25-year linear power guarantee.



Indoor electrical wiring with embedded cable tray which can be capped - Only 2 cable to wire per Helioroof® length

A step forward for sustainable roof panels

Helioroof® doesn't just help projects reap all the environmental benefits inherent in solar energy generation. Its design and innovation add further sustainability advantages, helping to lower the overall carbon footprints of residential and commercial buildings.



Born from innovation: the Helexio® Line project

ArcelorMittal Construction's Helexio® Line project focuses on the development of solar energy technologies to support global climate goals. Helioroof® is manufactured at the 6,000m² Helexio® Line plant in Contrisson, France, and is supported by the EU Green Deal. This product is also supported by the EU Innovation Fund, a scheme which heavily funds a select few initiatives aimed at developing advancements in low-carbon technologies including hydrogen, renewable heating, biofuels, steel and solar energy.

Funded by the European Union

Helioroof® represents a major landmark in the Helexio® Line project. As a pioneering step forward in solar roofing panels, Helioroof® offers a low-carbon mean of efficiently generating energy for buildings. **Installing Helioroof® contributes to a 25% reduction in CO_2 emissions** compared to standard solar insulated roofs, making a hugely positive difference to buildings' carbon footprint.

Helioroof®'s sustainability credentials

- 25% less CO_2 emissions
- High-level thermal insulation reduces energy loss from buildings
- The panels' durability increases the lifespan of roofs, eradicating the need for emissions-producing rebuilds
- Prefabricated production of Helioroof® limits onsite material waste due to greater manufacturing precision in quality-controlled environments

XCarb®
Recycled and renewably produced

Availability in XCarb® recyclable and renewably produced steel minimises roofs' carbon footprint and supports the circular economy

Winner of The smarter E AWARD 2024

At Intersolar 2024, the world's leading trade fair for the solar industry, it was announced Helioroof® had won The smarter E AWARD 2024 in the photovoltaics category.

The smarter E AWARD is one of the most prestigious awards within the energy industry, and rewards innovations that are actively shaping the future of the sector. The judges called Helioroof® **"a practical solar solution with unique benefits for commercial, industrial and residential buildings."**

As well recognising Helioroof®'s trailblazing features, the honour affirmed ArcelorMittal Construction's leading position in the drive towards reducing the construction industry's environmental impact. ArcelorMittal Construction has committed to carbon neutrality by 2050, and has launched a host of schemes designed to bring about a more sustainable built environment.

Fit Helioroof® to your project's requirements

The adaptability and compatibility that Helioroof® offers makes it an ideal fit for any roof.

Adapt to any roof

Helioroof® is available in lengths varying from 2 to 12 metres, and panels of different sizes can be combined to precisely fit any roof layout. Panel thickness also ranges between 40 and 140mm (Thermal resistance up to 6 (m2.K/W) , meaning Helioroof®'s thermal performance can be matched to any insulation requirements.

Ultra compatible

For even greater performance, Helioroof® can be integrated with a number of roof accessories like roof windows, socket plates and other panels, including Ondatherm®. Ondatherm® roof panels offer an extraordinarily high load-bearing capacity and watertightness, and facilitate quick and economical solar panel installation.

Helioroof®

Find the right solution for you

There are a number of ways to customise Helioroof® to meet your project's requirements.

To maximise sustainability, choose Helioroof® in XCarb® recyclable and renewably produced steel. XCarb® recyclable and renewably produced steel is produced via the Electric Arc Furnace process, and made using high levels of scrap and 100% renewable energy. As a low carbon material, selecting Helioroof® in XCarb® recycled and renewably produced steel is an excellent way to minimise the carbon footprint of your project.

Helioroof® is also available in a number of durable coatings, including Hairexcel®. Hairexcel® offers excellent resistance to UV rays, abrasion, impact and scratches, making it the perfect coating for roof panels even in the harshest environments.

ArcelorMittal Construction

ArcelorMittal

Let's build a sustainable future together

As a pioneering, award-winning Photovolaic category solution, Helioroof® facilitates speed, versatility and cost effectiveness in solar roof installation. Simplify installation, boost solar energy performance and reduce your roof's carbon footprint with Helioroof®.

Contact ArcelorMittal Construction today to find out how Helioroof® could make your solar roof faster to install, lighter and smarter.

Helexio Line

Funded by the European Union

Helexio Line is supported by EU Innovation Funds in the frame of European Green Deal initiative.

For more information, get in touch:
helioroof.amc@arcelormittal.com
or visit: helioroof.com

Smarter steels for people and planet

construction.arcelormittal.com