![ArcelorMittal logo]

ArcelorMittal Europe – Flat Products

Organic coated steel for solar roofs

Organic coated steel roofing is the best choice for solar panels

Organic coated steel roofing solutions offer a number of key advantages when it comes to solar roofing.
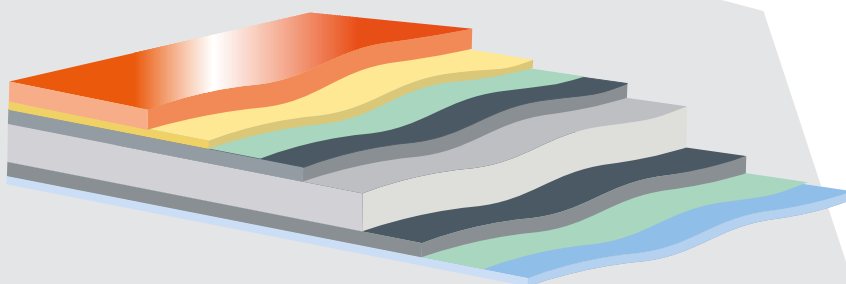
- **Reduced weight**, for lighter building structures and lower installation costs.
- Compatible with **both shallow and steep pitches**, suitable for all building types: residential, commercial and tertiary, industrial, logistics and agricultural.
- **Low maintenance**, with a surface that is easy to clean and less susceptible to mould.
- **Enhanced durability**, thanks to greater resistance to temperature variations than other materials.

Choosing the optimum coating for your solar roof

To ensure corrosion resistance and a coloured finish, the steel is coated twice, both with a **metallic** zinc-based coating and with an **organic** coating.

There are several parameters to consider when deciding which coating is right for you.

- Choose **a steel guaranteed** to last the lifetime of the photovoltaic (PV) panels. ArcelorMittal's Granite® range includes steels with guarantees of up to 30 years.
- Choose a coating with a **textured surface** to reduce slip hazards and to ensure safer working conditions for fitters and maintenance technicians. It also improves scratch resistance.
- **Optigal® metallic zinc-aluminium-magnesium substrate** applied beneath the coating improves durability while minimising use of resources.

XCarb® low carbon-emissions steel

ArcelorMittal's XCarb® recycled and renewably produced provides steel with a low carbon footprint for sustainable construction projects.

This steel is made using high levels of scrap and 100-percent renewable electricity.

By specifying Granite® organic coated steel manufactured from XCarb®, you will have the best of both worlds: a solar solution combined with sustainable design.

XCarb® steel is available for use with the full range of Granite® organic coatings for PV roofing.

- ■ Textured top coat
- ■ Corrosion resistant primer
- ■ Pre-treatment
- ■ Zinc or Optigal®
- ■ Steel substrate
- ■ Back coat

Choose the most suitable organic coating from the Granite® range

The building location and the length of the PV system guarantee will determine your choice of coating.

Guarantee period[1]

	Surface finish	Rural, urban or industrial environment	Marine environment (distance from the sea)		
		No or moderate pollution	3 to 20 km	1 to < 3 km	300 m to < 1 km
Corrosion category EN 10169 Corrosivity		C2 or C3 Low or Medium	C3 Medium	C4 High	C5 Very high
Granite® HDS 35μm Granite® Deep Mat 40μm	smooth textured	15	10	E[2]	–
Granite® HDX 55μm Granite® Storm 50μm	grained textured	25	20	10	E[2]
Granite® HDXtreme Satin 75μm Granite® HDXtreme Mat 70μm	grained textured	30	25	15	10

[1] Guarantee against perforation of the sheet steel. For further details, please refer to the official guarantee document.

[2] An environmental questionnaire must be completed for each project.

Recommendations for correct use of organic coated steel for PV roofing

Selecting a coating that is compatible with the lifetime of the PV modules will avoid costly maintenance. The modules must be installed within two years of the roof being erected. A minimum gap of 50 mm must be maintained between the roof and the module to facilitate annual inspection and ventilation and allow rainwater to clean the roof naturally.

At the top of the roof, a section of module measuring at least 1 m must be left free to enable rain to drain off and make cleaning easier.

The pitch of the roof must be at least 5% if there is no overlapping, or 7% with overlapping.

Colour range

Granite® HDS, HDX and HDXtreme are available in a wide range of colours.

The textured surfaces of **Granite® Deep Mat** and **Granite® Storm** offer two clear benefits: reduced slip hazards for technicians working on the roof and improved scratch resistance.

The same range of 11 colours is available for both products.

Category 3					Category 4
Moss green D6005/D605X	Chrome green D6020/D620X	Grey brown D8019/D819X	Jet black D9005/D905X	Anthracite grey D7016/D716X	Brown red D3011/D311X
Copper brown D8004/D804X	Oxide red D3009/D309X	Chocolate brown D8017/D817X	Graphite grey D7024/D724X	Wine red 3005/D305X	

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