ArcelorMittal Europe – Tubular Products

ArcelorMittal

XCarb®

Towards net zero steel

„ At ArcelorMittal, our goal is to help build a better world with smarter steels. Steels made using innovative processes which use less energy, emit significantly less carbon, and reduce costs. Steels that are cleaner, stronger, and reusable."

Aditya Mittal, Chief Executive Officer, ArcelorMittal

Our decarbonisation roadmap

From 2023

First XCarb® recycled and renewably produced tubes

- Tubes manufactured using physically decarbonized steel, produced via an Electric Arc Furnace (EAF) route
- >75% scrap content and 100% renewable electricity used during steelmaking
- Achieved a cradle-to-gate carbon footprint of 0.646 tCO_2e* per tonne of steel tubes,as verified through third-party Environmental Product Declarations (EPDs)

** As per EN 15804 and ISO 14025 methodology for life cycle assessment*

What is XCarb®?

XCarb® is ArcelorMittal's 'towards net-zero steel' transformation programme. It brings together all of the company's low-emission products, processes, technologies, innovation projects, initiatives and alliances in one single-minded effort to make the changes needed to get our organisation and industry to net zero by 2050. It is fundamental to ArcelorMittal becoming the 'steel company of the future.'

Our purpose is to help our customers develop their business in a sustainable way, achieving their most ambitious decarbonisation targets.

How does XCarb® fit into ArcelorMittal Europe's broader decarbonisation strategy?

As the world's leading steel company, we have a huge responsibility to innovate, implement and successfully move towards a cleaner steel industry. Our journey to become net-zero by 2050 is well underway. We have joined the Paris Agreement climate targets and the European Green Deal with the ambition to be net-zero by 2050.

We have a significant and broad range of decarbonisation initiatives underway. XCarb® is the umbrella brand that brings together all of ArcelorMittal's low-emission products, as well as wider initiatives and sustainable innovation projects.

XCarb® serves as demonstrable evidence of our determination and accelerating commitment to achieve net-zero emissions by 2050. We will continue to drive innovation to meet our decarbonisation goals and are committed to leading the industry transition towards net-zero steel. We have the scale, resources, technology prowess and ambition required to make a significant impact.

By 2050

ArcelorMittal ambition to achieve net zero by 2050

- Group-wide 2050 net-zero target
- Aligned with the Paris climate goals and the European Green Deal

Responsible Steel™ standards & certification

More than emission reductions

While reducing emissions is a key goal for ArcelorMittal and our customers, we are also considering sustainability in a broader context. As part of that approach, ArcelorMittal has played a pivotal role in establishing the ResponsibleSteel™ standard since 2015.

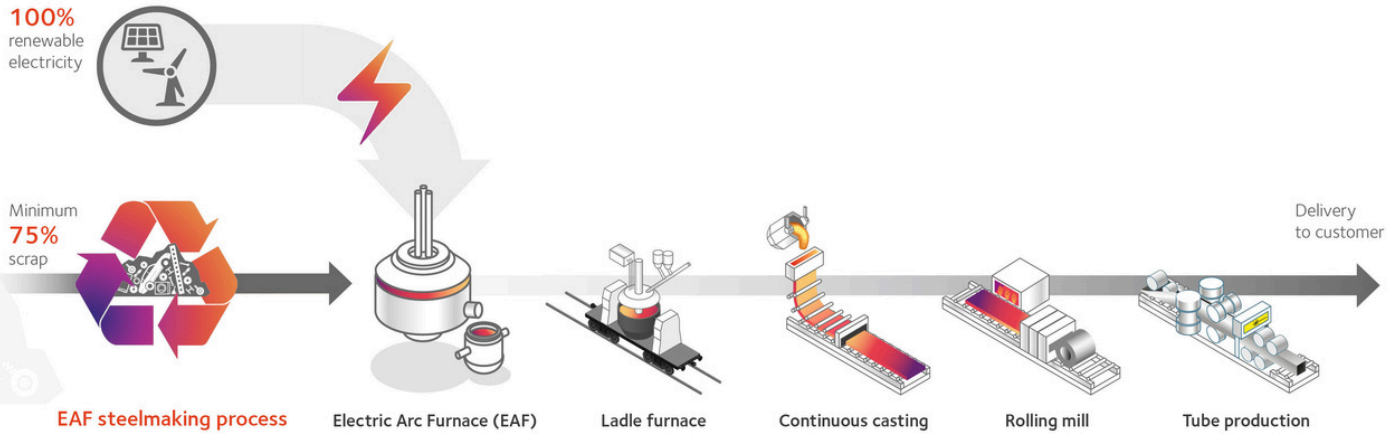
What are XCarb® recycled and renewably produced tubes?

ArcelorMittal's XCarb® recycled and renewably produced is applied to steels produced in an electric arc furnace (EAF) using high levels of scrap (≥75%) and 100-percent renewable electricity for the EAF.

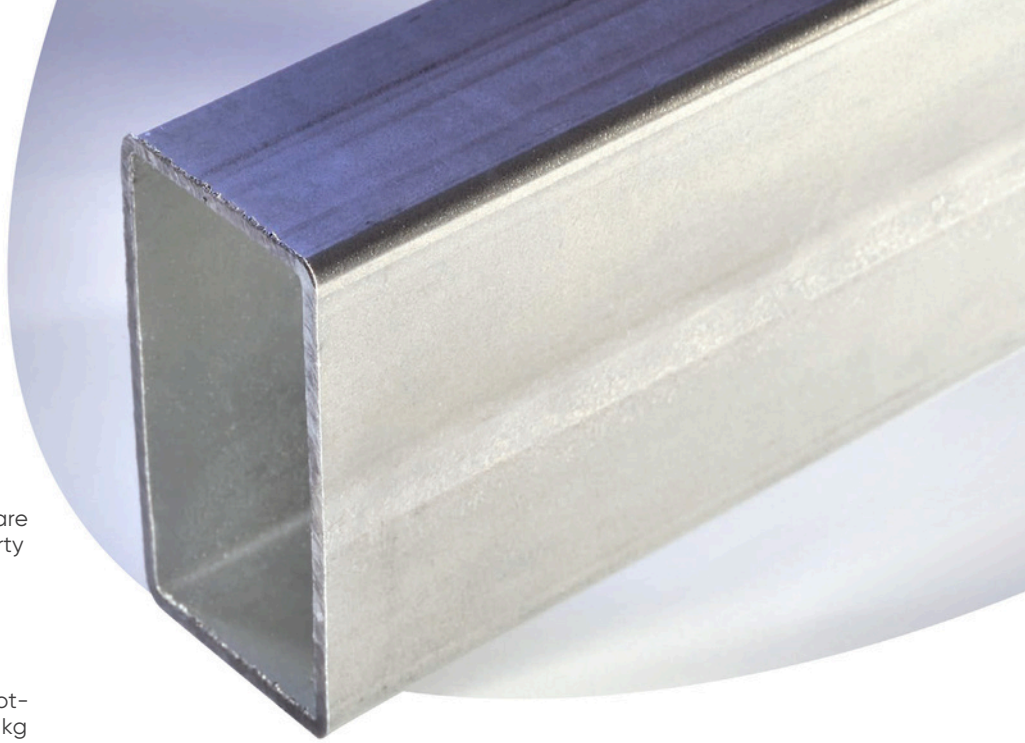
The electricity used comes from renewable sources such as wind and solar and is supplied via a recognised Guarantee of Origin (GoO) scheme.

ArcelorMittal Europe – Tubular Products uses XCarb® recycled and renewably produced hot rolled coils to produce low-carbon hollow structural sections.

By choosing tubes made from XCarb® recycled and renewably produced steel, our customers can reduce the cradle-to-gate CO_2 footprint of their products and projects. The associated figures are reported in our Environmental Product Declarations (EPDs), which are independently verified by third parties.



Our list of Hollow Structural Sections with associated EPD documents is being developed



Environmental Product Declarations (EPDs) are widely used in the construction sector. In Europe, the European Committee for Standardisation has published EN 15804. All EPDs are based on a life cycle assessment (LCA) and follow the ISO 14025 and EN 15804 standards. They are independently verified by a certified third-party verifier.

ArcelorMittal Europe - Tubular Products 's Environmental Product Declaration (EPD) for Structural Hollow Sections, produced from XCarb® recycled and renewably produced hot-rolled coils, certifies a carbon footprint of 646 kg CO_2-equivalent per tonne of finished steel tubes. This figure is calculated in accordance with the EPD methodology defined in EN 15804, covering modules A1–A3 (cradle-to-gate).

Environmental Product Declarations for four tube products:

- Structural Hollow Section - EN 10210/EN 10219
- Seamless pipes - EN 10216/ISO 3183
- Welded pipes - EN 10217/EN 10224/EN 10255
- Structural Hollow Section made of XCarb® recycled and renewably produced - EN 10219
- Precision tubes made of XCarb recycled and renewably produced – EN10305-3
- Structural Hollow Section made of XCarb® recycled and renewably produced - EN 10210

Environmental Product Declarations available at:
tubular.arcelormittal.com/documents-library/Environmental_Declarations

Reduce CO_2 footprint with XCarb® recycled and renewably produced tubes

More than steel tubes

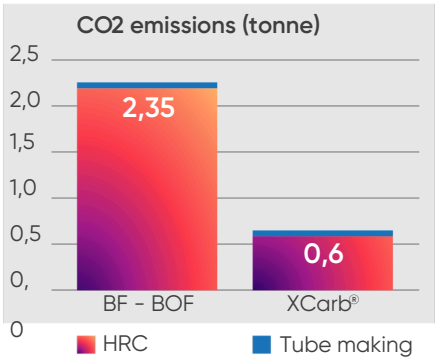
The world we knew is now changing at an unprecedented pace. Our buildings and homes are being transformed to be more sustainable. The energy that we consume in our daily lives is increasingly generated by renewables sources. And our mobility is electrifying at galloping speed.

Steel tubes and pipes are at the heart of this transition towards our net-zero goal. With its unrivaled range of steel tubes solutions, ArcelorMittal Europe - Tubular Products stands at the side of its customers to take part in this transformation.

Sustainable engineering uses XCarb® steel

Steel tubes are an ideal solution for various structural applications such as building frames and sprinklers, solar structures, windmills, scaffolding or machinery. The recyclability of steel is an important advantage in environmental considerations and resource-efficient construction. The use of XCarb® recycled and renewably produced steel in tubes represents a further advance, reducing CO_2 emissions by up to -75% compared to traditional processes.

The CO_2 equivalent reduction achieved using XCarb® recycled and renewably produced steel was calculated on the basis of a life cycle analysis (LCA). This takes into account the global warming potential values (A1-A3 cradle to gate) from the ArcelorMittal EPD for Hot Rolled Steel Coils (2.35t CO_2/t steel), the ArcelorMittal EPD for XCarb® recycled and renewably produced Hot Rolled Coils (0.6t CO_2/t steel) and the use of 100% renewable electricity in the production of tubes.



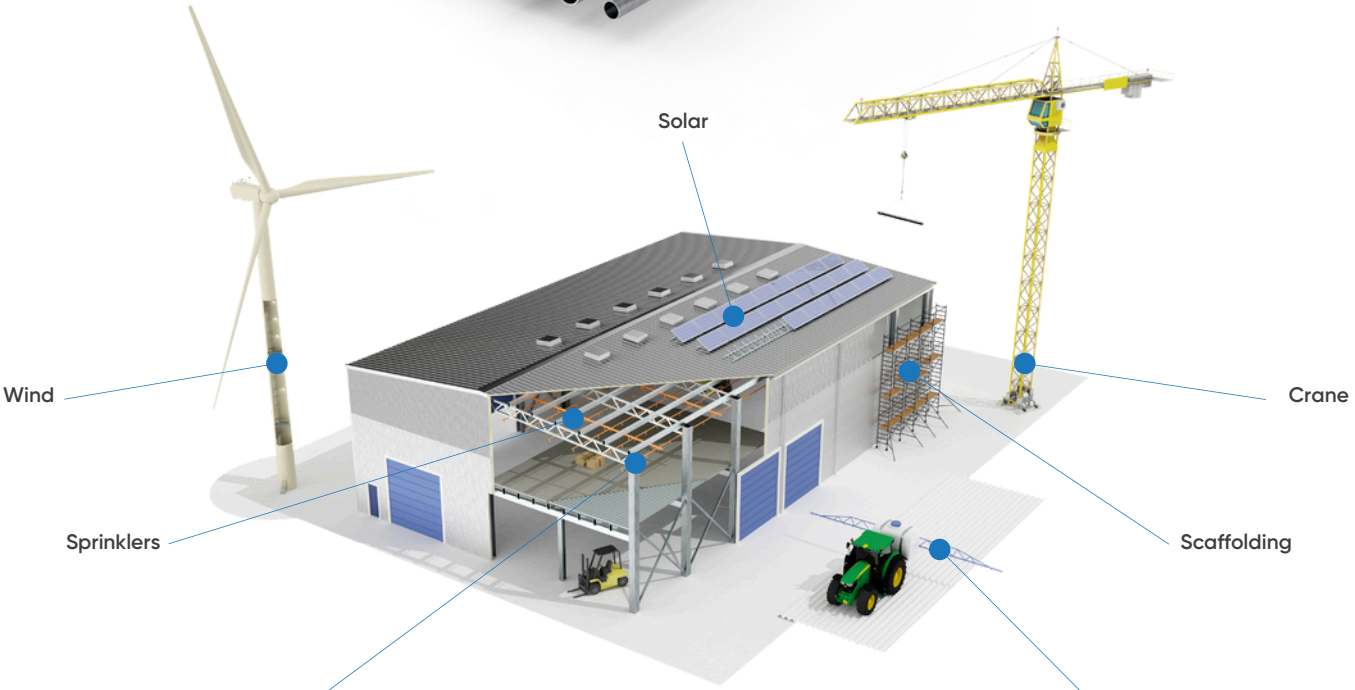
XCarb® recycled and renewably produced tubes save circa:

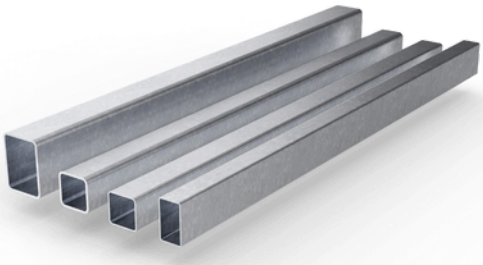
-1.6t

of CO_2 per tonne of tubes produced

ArcelorMittal EPDs for Hot Rolled Steel Coils and for XCarb® recycled and renewably produced Hot Rolled Coils, supported by third-party verified EPDs following EN 15804.

Structural round tubes





Structural square and rectangular tubes

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