

ArcelorMittal Europe – Tubular Products



ArcelorMittal

XCarb<sup>®</sup>

Towards carbon neutral 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**

- Physical decarbonized steel
- Produced in an electric arc furnace
- Using high levels of scrap and renewable electricity

**By  
2030**

**CO<sub>2</sub> emissions reduction by 2030**

- Group- wide: -25%
- Europe: -35%

# What is XCarb<sup>®</sup>?

XCarb<sup>®</sup> is an umbrella brand that brings together all of ArcelorMittal's reduced, low and zero-carbon products and steelmaking activities, as well as wider initiatives and green innovation projects, into a single effort focused on achieving demonstrable progress towards carbon neutral steel.

## How does XCarb<sup>®</sup> 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 carbon neutral by 2050 is well underway. We have joined the Paris Agreement climate targets and the European Green Deal by committing to reduce European CO<sub>2</sub> emissions by 35% by 2030, with a further ambition to be carbon neutral by 2050.

We have a significant and broad range of decarbonisation initiatives underway. *XCarb<sup>®</sup> is the umbrella brand that brings together all of ArcelorMittal's reduced, low and zero-carbon products and steelmaking activities, as well as wider initiatives and green innovation projects.*

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

*"Our purpose is to help our customers develop their business in a sustainable way, achieving their most ambitious decarbonization targets"*

**Tanja Mantere**, Chief Executive Officer, ArcelorMittal Europe – Tubular Products

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



**More than carbon 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<sup>®</sup> recycled and renewably produced tubes?

ArcelorMittal's XCarb<sup>®</sup> recycled and renewably produced is applied to steels produced in an electric arc furnace (EAF) using high levels of scrap and 100-percent renewable electricity.

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<sup>®</sup> recycled and renewably produced hot rolled coils to produce low-carbon hollow structural sections.

Purchasing our tubes made of XCarb<sup>®</sup> recycled and renewably produced steel allows our customers to reduce the global CO<sub>2</sub> footprint of their projects, products, and finished goods. To calculate the total CO<sub>2</sub> impact of its products, our customers can use the figures reported in the EPD: they are independently certified by a third-party.

100%  
renewable  
electricity



Minimum  
75%  
scrap



EAF steelmaking process

Electric Arc Furnace (EAF)

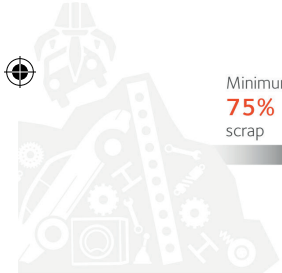
Ladle furnace

Continuous casting

Rolling mill

Tube production

Delivery  
to customer





# Our list of tubes with EPD grows

Environmental Product Declarations (EPDs) are widely used in the construction sector. In Europe, the European Committee for Standardisation has published EN 15804, which defines the "Core rules for the product category of construction products". All EPDs are based on a life cycle assessment (LCA) and follow the ISO 14025 and EN 15804 standards. They are independently verified by the Institute of Building and Environment (IBU). Global recognition is ensured as ArcelorMittal is part of ECO-platform.

The EPD for Structural Hollow Sections made of ArcelorMittal's XCarb® recycled and renewably produced hot-rolled coils results in a carbon footprint of only 650 kg CO<sub>2</sub>-e per tonne of steel tubes produced.

## 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

# Reduce CO<sub>2</sub> footprint with XCarb<sup>®</sup> 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 decarbonization. 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. [Just a tube it's not an option for us anymore.](#)

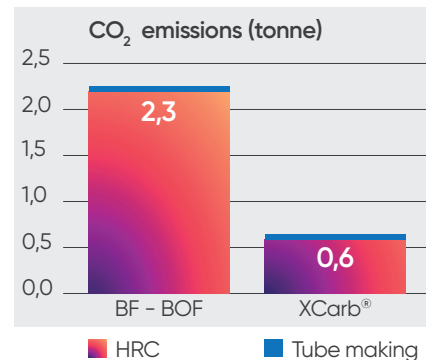
## Sustainable engineering uses XCarb<sup>®</sup> steel

Steel tubes are an ideal solution for various structural applications such as building frames and sprinklers, solar structures, windmills, scaffolding or machinery. The 100% recyclability of steel is an important advantage in environmental considerations and resource-efficient construction. [The use of XCarb<sup>®</sup> recycled and renewably produced steel in tubes represents a further advance, reducing CO<sub>2</sub> emissions by up to -75% compared to traditional processes.](#)

The CO<sub>2</sub> reduction achieved using XCarb<sup>®</sup> 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 Structural Hollow Sections (2.3t CO<sub>2</sub> /t steel), the ArcelorMittal EPD for Structural Hollow Section made of XCarb<sup>®</sup> recycled and renewably produced (0.6t CO<sub>2</sub> /t steel) and the use of 100% renewable energy in the production of tubes.



Saving  
up to  
**-75%**  
CO<sub>2</sub>

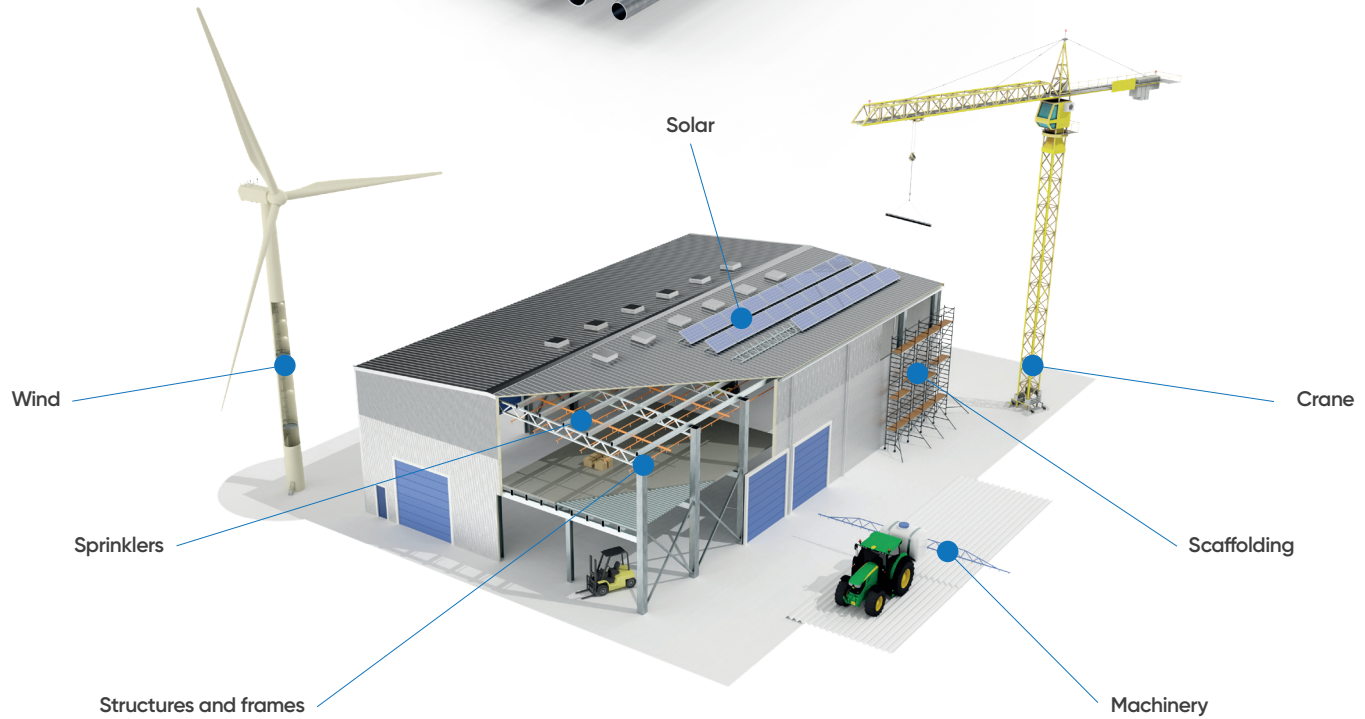
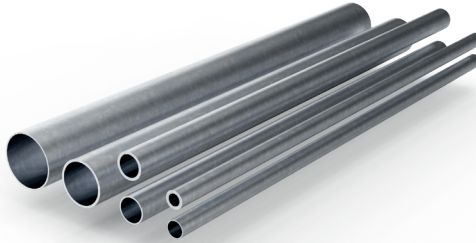


XCarb<sup>®</sup> RRP\*  
tubes saves  
circa:  
**-1.6t**  
of CO<sub>2</sub>  
per tonne of  
tubes produced

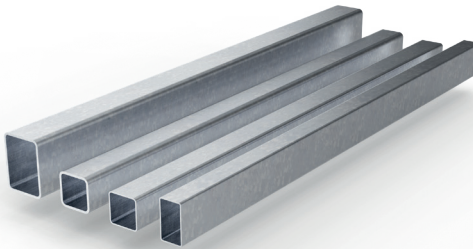
\*Recycled and  
renewably produced



Structural round tubes



Structural square and rectangular tubes





### **ArcelorMittal Europe – Tubular Products**

24-26 Boulevard d'Avranches  
1160 Luxembourg

*tubularproducts@arcelormittal.com*

### **Photo credits**

Jeroen Op de Beeck, ArcelorMittal  
© Chinahbzyg / shutterstock.com

### **Copyright**

All rights reserved for all countries.

This publication shall not be reproduced, in whole or in part, in any form or by any means whatsoever, without prior express written consent from ArcelorMittal. Care has been taken to ensure that the information is not contractually binding.

ArcelorMittal and any other ArcelorMittal Group company do not therefore accept any liability for errors or omissions or any information that is found to be misleading.

As this document may be subject to change at any time, please consult the latest information on *corporate.arcelormittal.com*.