ArcelorMittal Europe – Long Products



## XCarb

Recycled and renewably produced

"We have an important role to play in helping society deliver the objectives of the Paris agreement and are determined to lead our industry's transition to carbon neutral steel."

Authorita

Aditya Mittal, CEO, ArcelorMittal







#### What is XCarb<sup>™</sup>?

XCarb<sup>™</sup> is the new brand name for ArcelorMittal's ongoing global programme of steelmaking innovation targeted at carbon-neutral steel by 2050. The initiatives that are part of XCarb<sup>™</sup> aim to reduce the carbon footprint of ArcelorMittal and of our customers.

Our ambition is to position ArcelorMittal as the leading global steel company engaged in the most important challenge faced by the industry – that of producing all the steel the world needs in an environmentally sustainable way.

### What is XCarb<sup>™</sup> recycled and renewably produced?

One of the first decarbonisation initiatives from ArcelorMittal Europe – Long Products is XCarb™ recycled and renewably produced.

XCarb<sup>™</sup> recycled and renewably produced has been designed for products made via the Electric Arc Furnace ('EAF') route – powered by renewable electricity – using scrap steel. Steel produced by ArcelorMittal Europe – Long Products under our XCarb<sup>™</sup> recycled and renewably produced label is audited and certified by an independent third-party.



## What are the processes used to make XCarb<sup>™</sup> recycled and renewably produced?

To produce XCarb<sup>™</sup> recycled and renewably produced steel, ArcelorMittal Europe – Long Products uses 100-percent scrap. All of the electricity needed to transform the scrap into XCarb<sup>™</sup> recycled and renewably produced steels comes from renewable sources such as solar and wind power. The energy is provided by suppliers who are connected to the same grid as our production sites and whose projects are recent.

The combination of recycled content and renewable energy allows ArcelorMittal Europe – Long Products to offer steels with very low levels of  $CO_2$  emissions per tonne of finished steel. ArcelorMittal Europe – Long Products estimates that XCarb recycled and renewably produced steel will have a  $CO_2$  footprint as low as 0.3 per tonne of finished steel.

This is significantly lower than the average for the global steel industry which is around 2.3 tonnes of CO<sub>2</sub> emissions per tonne of steel products.<sup>1</sup>

Each tonne of steel produced under the XCarb™ recycled and renewably produced label will have its own production certificate. The certificate guarantees that only recycled steel was used in its production, and that the electrical energy used to make the steel came from renewable sources.

ArcelorMittal Europe – Long Products can also release an Environmental Product Declaration (EPD) for each product family produced under XCarb<sup>™</sup> recycled and renewably produced conditions. The EPD will detail the complete environmental cost of the specific product range.



#### **XCarb**<sup>™</sup> 5 The certification process Recycled and renewably produced DURINITING TURES S.A. UNCOMPOSITIVES SA 41 407 ET LOTINICOM LINET ENCLOSED AUTO- $$\label{eq:second} \begin{split} & (e_1,e_2,\ldots,e_{n-1},\ldots,e$$ Delivery of material documentation XCarb (E del. XCarb (E and certificate with XCarb<sup>™</sup> recycled and XCarb (E " XCarb" CE renewably produced XCarb Acceleration of the second sec CE Follow-up of the order system audited by a third party or Matter HD 400 X 509 XCarb 21000 10689 kg 51611 SPECIFICATION (19) \$355J2 + M 1900014900/003 Delivery of the final product to the customers Purchase of renewable electricity via "Guarantee of Origin" European System

#### What are the advantages for ArcelorMittal's customers?

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

#### How do we guarantee that XCarb<sup>™</sup> recycled and renewably produced steels are made using green electricity?

Steels with the XCarb<sup>™</sup> recycled and renewably produced label are audited and certified by an independent third-party. Each quarter, the auditor confirms that the steel complies with the two conditions (100-percent recycled steel and 100-percent green electricity) that enables them to receive the XCarb<sup>™</sup> recycled and renewably produced label. "XCarb<sup>™</sup> Recycled and renewably produced initiative is a great way forward for the environment. Combining 100% recycled steel with 100% renewable electricity for the production of new steel products is clearly in line with the Cradle to Cradle-inspired goals for making a more sustainable world. It promotes recycling and the use of renewable electricity and furthermore will support long-term investments in this critical area of steel manufacturing."

William McDonough Founder, William McDonough + Partners

## Towards carbon-neutral steel

## When could I get XCarb<sup>™</sup> recycled and renewably produced steel products?

XCarb™ recycled and renewably produced steel can be purchased today.

We have embarked on a long journey to reduce our CO₂ footprint with the goal of becoming carbonneutral by 2050. Further updates on our progress and our XCarb<sup>™</sup> product range will be made as that journey continues.

### How could I find out more about XCarb<sup>™</sup>?

ArcelorMittal Europe – Long Products customers can contact their local support team for more information about XCarb™ recycled and renewably produced steel.

You can also visit:

europe.arcelormittal.com/sustainability/xcarb/ recycled\_and\_renewably\_produced



#### At ArcelorMittal, sustainability is about more than carbon reduction

#### Our commitment to sustainable development

High standards of business ethics and governance have been fundamental at ArcelorMittal since the company was founded. We aim to treat our own people and our stakeholders with dignity and respect. We want to listen thoughtfully, learn from our experience, and lead by example.

In 2015, Arcelor Mittal launched its sustainable development framework and identified 10 sustainable outcomes to prepare and respond to the most signifcant long-term environmental and social issues including health and safety, product innovation, the environment, climate change, customer reassurance, and social wellbeing.

We believe that our best way of contributing to the United Nations 17 Sustainable Development Goals (SDGs) is to pursue our 10 sustainable outcomes.

corporate.arcelormittal.com/ sustainability/our-10-sdoutcomes

#### ArcelorMittal Europe: Climate Action Report

In 2020, Arcelor Mittal Europe published its first Climate Action Report. The document details how Arcelor Mittal plans to reduce emissions in its European operations by 30 percent by 2030 – a key milestone towards reaching net zero by 2050.

The Report elaborates on the ground-breaking work underway to achieve our carbon-neutral steelmaking objectives. To transform our operations to become carbon neutral, we need to move primary (iron ore-based) steel production away from a reliance on fossil fuel energy and towards the use of 'clean energy' – in the form of clean electricity, circular carbon, and carbon capture and storage (CCS).

corporate.arcelormittal. com/sustainability/climateaction-in-europe



## CDP

In 2020, Arcelor Mittal was recognised by CDP for our strong performance on corporate transparency and action on climate change. Once again, we maintained our A- score in the CDP's climate change assessment. This puts Arcelor Mittal in the top 10 percent of the steel industry and within the top quartile of all metal smelting, refining, and forming companies.



Steel has been recognised by the European Union as a permanent material. This designation recognises that steel can be infinitely recycled without loss of quality, no matter how many times it is recycled.



ArcelorMittal is a founding member of ResponsibleSteel™ – the steel industry's first global multi-stakeholder standard and certification initiative.

The initiative includes members from every stage of the steel supply chain. ResponsibleSteel<sup>™</sup> has developed an independent certification standard and programme via a process that aims to align with the ISEAL codes of good practice.

More info: responsiblesteel.org

### Reducing carbon footprint through steel Foundation Solutions.

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## EcoSheetPile<sup>™</sup> Plus

Sheet piles are sections of steel with interlocking edges. They are used to form retaining walls for infrastructure projects, ports and waterways, and urban transport. Sheet piles also have an important role to play in flood protection and shore erosion schemes which aim to reduce the impact of climate change on communities.

Sheet piles fit perfectly into the circular economy concept. Around a quarter of the sheet piles produced are reused up to five times before they are recycled.

The AZ®-800 range, launched by ArcelorMittal Europe – Long Products in 2016, provided an even more cost-efficient and environmentally friendly solution. A life cycle analysis (LCA) of our AZ®-800 sheet piles in a typical application showed that our innovative design concept has a 45 percent lower carbon footprint than alternative construction solutions.

Our new EcoSheetPile<sup>™</sup> Plus solution further reduces the embedded carbon footprint of sheet piling. An LCA shows that the embedded carbon footprint of EcoSheetPile<sup>™</sup> Plus is one-fifth that achieved by our competitors.

sheetpiling.arcelormittal.com



# The intelligent construction choice Religence

Built into the holistic Steligence® approach is a broad range of thinner, lighter, and high-performance steel solutions.

Amongst those solutions, the use of high strength steel sections allows a complete building optimisation and has the potential to reduce the embedded carbon footprint of a building by 38 percent while enhancing the flexibility and economics of the structure.

Considering the share of global emissions from the built environment, the impact of such improvement could be very significant.

steligence.arcelormittal.com



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