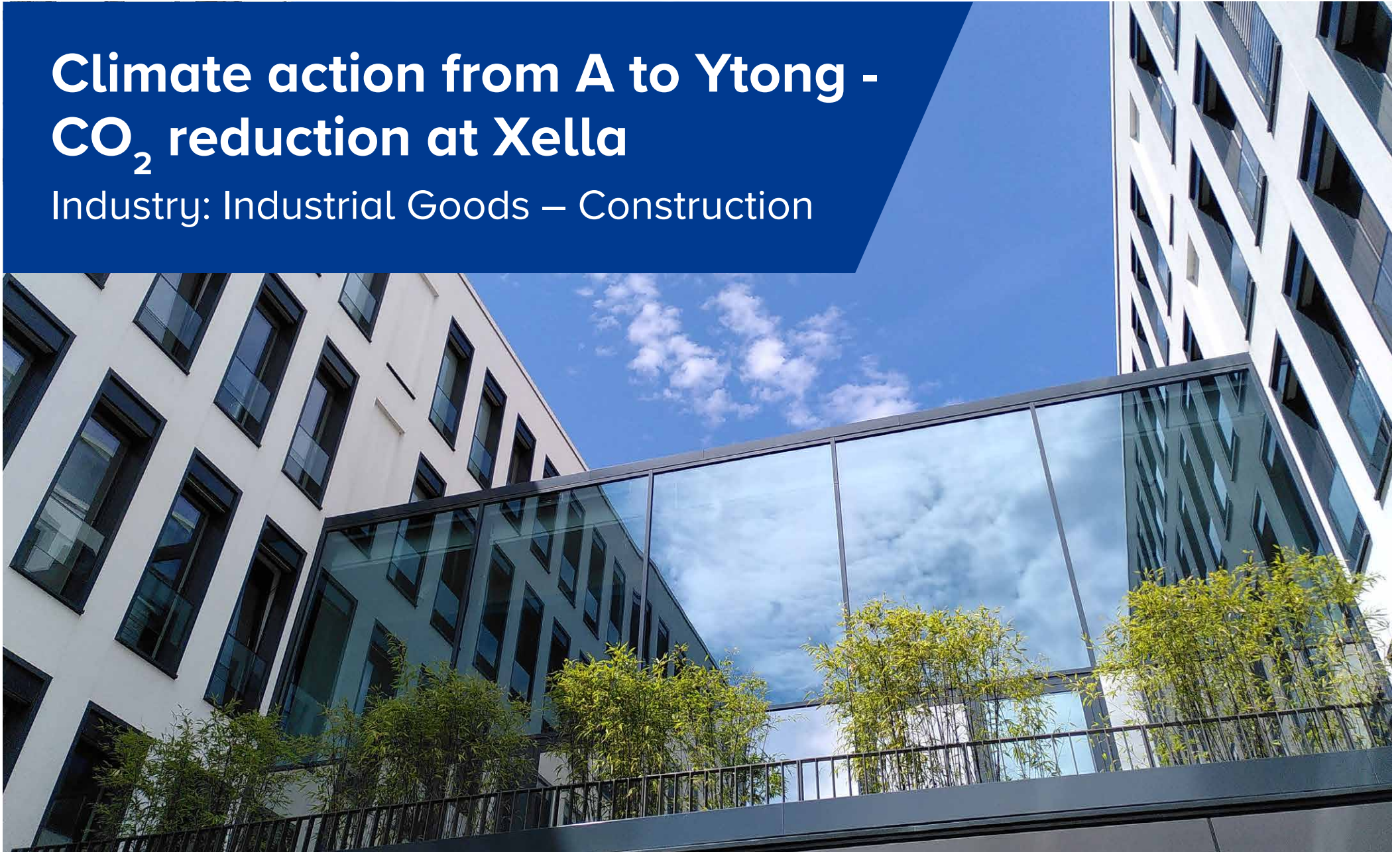


Climate action from A to Ytong - CO₂ reduction at Xella

Industry: Industrial Goods – Construction





Mineral building materials for residential
and commercial construction

About Xella:

Xella Deutschland GmbH manufactures building materials made of aerated concrete and sand-lime bricks under the brands Ytong, Hebel, and Silka. It is a solution provider for mineral, non-combustible insulation systems under the Multipor brand. As the German national subsidiary, the company is part of the Xella Group, which is a European provider of efficient and sustainable wall solutions for the entire building shell. The products of Xella Deutschland are coordinated with each other and meet the most diverse requirements of high-quality building structures. Xella Deutschland focuses on topics such as sustainability and digitalization within the construction industry. This makes the Duisburg-based company a model for future-oriented construction.

YTONG

silka

multiPOR

hebel






The Challenge

Climate change and dwindling resources in a CO₂-intensive industry.

The construction and building industry is responsible for 38% of global CO₂ emissions. This includes both construction itself and the subsequent operations involved. However, half of the emissions already occur in the production and processing of building materials. This was shown in a [study by the World Business Council for Sustainable Development](#).

Many buildings are still insufficiently insulated and therefore consume unnecessary energy when heated. There is also so-called gray energy. This is energy that is generated by construction and the production of building materials, as well as in transport to the construction site and the demolition of buildings. These activities ultimately result in the emitting of greenhouse gases. According to the [Federal Statistical Office](#), the construction industry also produces 230 million tons of waste each year in Germany during construction and demolition processes. That is more than half the annual volume of waste in the country.

In the face of the climate crisis and dwindling resources, the construction industry is faced with the challenge of finding more sustainable solutions. As a leading international solution provider in the field of construction and insulation materials, Xella has taken up this challenge.

A photograph of two construction workers on a rooftop. One worker in an orange hard hat is kneeling on a white panel, while another in a yellow hard hat is leaning over it. A large white panel is being lowered into place by a crane, suspended by chains. The background shows a cityscape with a building under construction covered in red scaffolding. The sky is blue with light clouds.

“ When it comes to Building Materials, our philosophy is simple: If it can't be recycled, let's not make it.

Thomas Bois, Chief Executive Officer, Building Materials ”

The solution

Reduction through recycling and resource efficiency

By 2030, Xella aims to reduce its own CO₂ emissions (Scope 1 and 2) by 30%. For its Multipor brand, Xella is going one step further and offsetting the emissions of Multipor products and accessories.

What is Multipor?

Multipor is a mineral insulation material consisting of sand, lime, cement, water, and a small amount of a pore-forming agent. Due to the purely mineral material structure, the panels are non-combustible and form stable. They are also durable.

Interior insulation with the Multipor system improves indoor climate in buildings and prevents mold problems. Due to its diffusion openness, Multipor initially absorbs moisture and gradually releases it back into the room air.

Well-insulated houses make an important contribution to climate action, as they prevent heat loss and save heating energy, thus helping to reduce CO₂ emissions.



Xella's reduction measures at a glance:

Circular economy

- Established process for waste minimisation

Recycling

- Integration of Multipor into Xella's tried-and-tested „Big Bag System“: Xella takes back and reuses construction site cuttings created during processing

Energy efficiency

- Installation of photovoltaic systems on roofs of its manufacturing facilities
- Use of energy-saving LED lighting solutions
- Increased purchasing of renewable energy
- Investment in cogeneration, particularly in the Insulating Division
- Replacement of older machinery with newer, more energy-efficient equipment.

Digitalisation

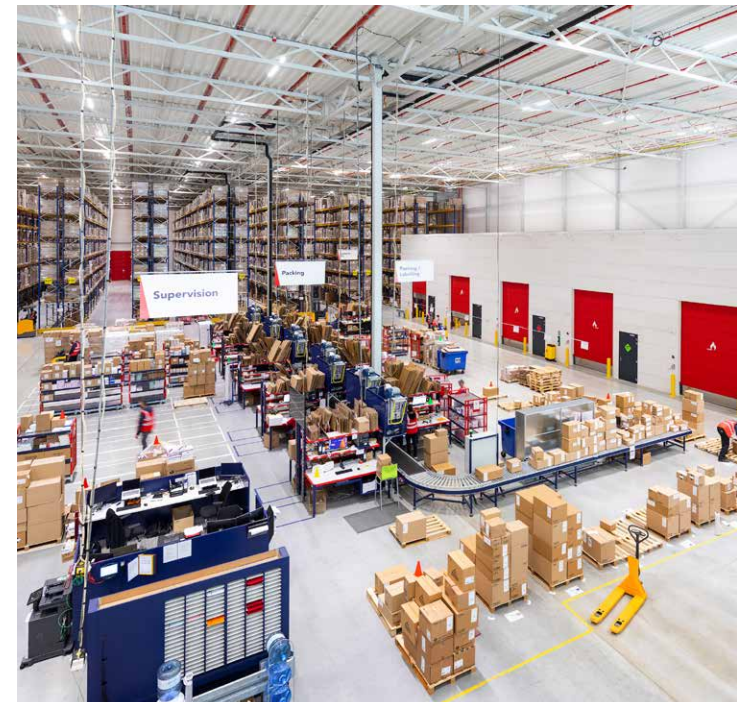
- Highest level of digitisation in the industry: blue.sprint is a digital service provided by Xella for creating virtual construction projects to better plan the use of materials. This reduces waste and costs and increases the efficiency of construction projects

Short transportation routes

- Xella obtains 80 percent of its materials and raw materials from sources within the respective country of production
- Expansion of Xella's „green logistics programs“ via: the use of rail, waterways of rail, waterways, and e-mobility, as well as optimal utilization of transport and logistics capacities

Research & Development

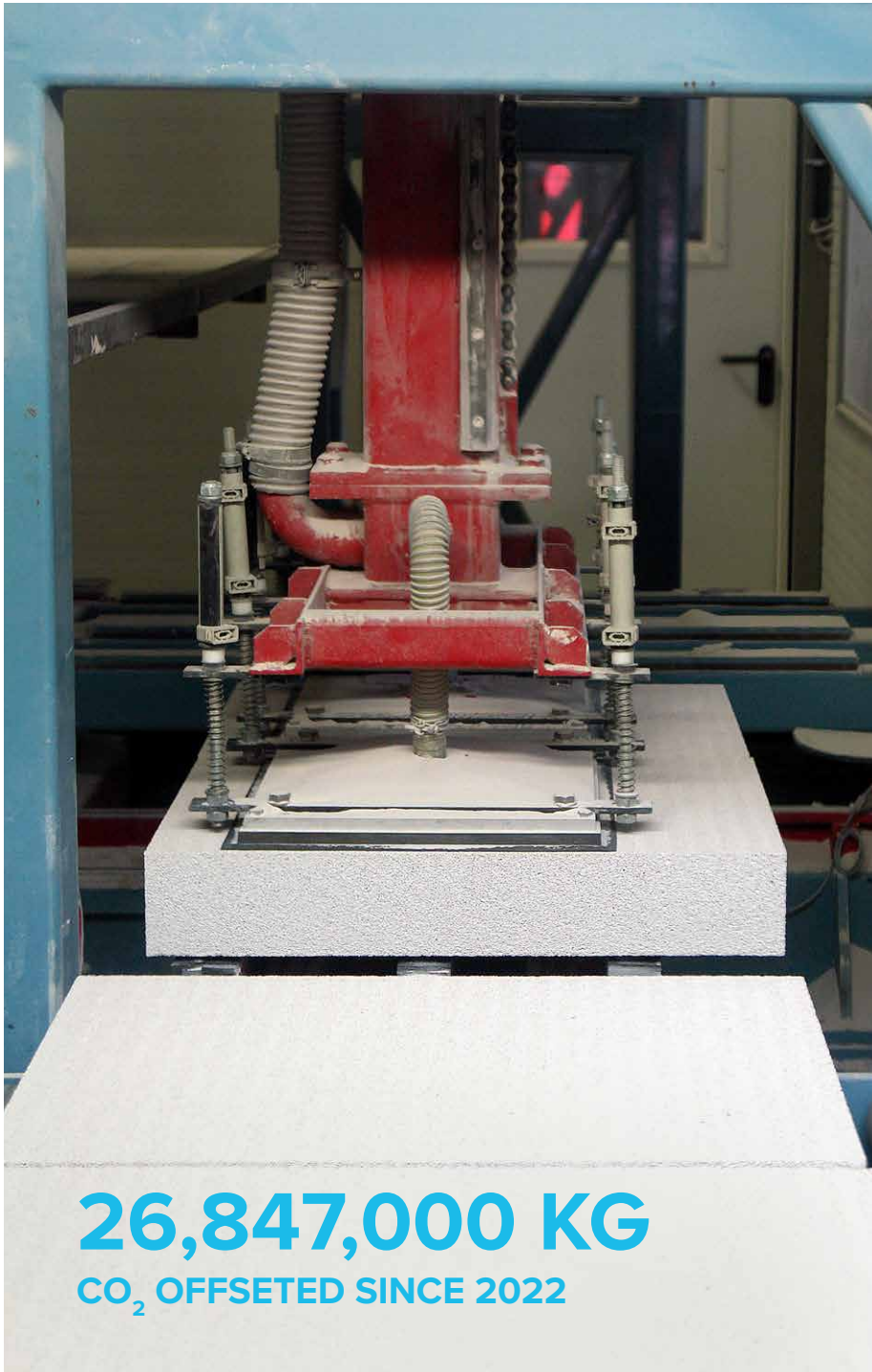
- Testing alternative raw materials or formulations that contain more recycled raw materials
- In 2021, Xella was able to double the amount of aerated concrete powder derived from scraps and waste in its formulation, up to 20 percent



“ It is our mission to design energy-efficient, cost-effective and sustainable construction, housing and living ... and by setting clear targets on CO₂ emissions, resource conservation, diversity and equal opportunities, our ESG Strategy provides the blueprint to achieve that mission.

Cecile Fages, Chief Sustainability and Communications Officer ”





The result

Multipor: A product with a balanced carbon footprint

Together with ClimatePartner, Xella has calculated the CO₂ emissions generated by raw materials, packaging, logistics, and disposal during the production of Multipor. Xella offsets these emissions by supporting certified climate protection projects.

Pure cuttings from Multipor can be completely reused.

Offsetting unabated emissions is a sensible step towards making Xella's climate protection goals visible and tangible for its customers. Nevertheless, CO₂ reduction remains the clear focus.

Carbon offsetting is a climate change mitigation tool in which greenhouse gases are offset by saving or storing them elsewhere. The cooperation with ClimatePartner makes it possible to offset emissions by financing climate offset projects.



ClimatePartner

All solutions at a glance



Corporate Carbon Footprint (CCF)

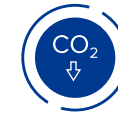
Calculating your corporate carbon footprint (CCF) provides you with an overview of your company's greenhouse gas emissions, where carbon hotspots lie within your business, and what targets you can set to reduce your climate impact.



Used by Xella

Product Carbon Footprints (PCF)

The calculation of a Product Carbon Footprint (PCF) for a product or service considers the emissions from the raw materials to delivery and disposal (cradle-to-customer plus end-of-life). In addition, you can also include the use phase.



Carbon emission reduction

A reduction strategy based on science-based targets sets out the priorities for climate work. It provides an agreed framework for deploying resources, creating an impact, and communicating results.



Used by Xella

Carbon offsetting

No matter how much you reduce your existing emissions, there will always be some you cannot avoid. Unabated emissions can be offset by supporting a recognised carbon offset project. Your products, services and company can then be classified as climate-neutral, given the overall effect on the climate has been offset.



Used by Xella

Communication

Climate action initiatives should be celebrated. We help you to communicate the steps you're taking towards measuring and reducing your carbon emissions to your clients and stakeholders. We support the use of correct terminology, avoid greenwashing, and help you transparently express your climate commitments.

Carbon offset project

International climate action combined with regional commitment in Germany



On more than 97,000 hectares, the **project protects** the forest at the mouth of the Amazon River in Pará, Brazil, by avoiding commercial deforestation. For local families, it creates alternative sources of income, e.g. through trade with the açaí fruit. Colombia's largest REDD+ project protects 1,150,200 hectares of rainforest and preserves its biodiversity. For every ton of CO₂ offset, an additional amount of funding also flows to the mountain forest project in Lichtenau and Hunsrück, Germany. Among other things, this project is focused on the renaturation of peatlands.

Carbon offset project

Wind power in Bulgaria



The **Saint Nikola wind farm** in northeastern Bulgaria contributes to the economic revitalization and sustainable development of the region. The park is in the municipality of Kavarna, about 70 km from the city of Varna, and consists of 52 turbines with a capacity of 3 MW each. Local farmers can continue to use the land for agriculture, as there is enough distance between the generators. The project, in close cooperation with the local community, supports many programs each year in the areas of health, education, culture, environmental protection, and sports.

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