

FischerTHERM Carrier® Green

System solutions for greening roofs and façades



All in one place

So that you can make reliable and sustainable plans right from the very beginning, we offer system solutions featuring the most up-to-date components for industrial and commercial construction – all from a single source. Our product portfolio and our services serve as the foundation for demanding projects with challenging requirements in terms of flexibility and individuality.

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Finished to the highest quality and optimally tuned to your requirements, our product portfolio facilitates cost-effective and sustainable construction with high standards for aesthetics.

Zeremis®
Together towards
a zero-emissions,
circular world.

Fischer Profil

Partner for sustainable construction

As a Tata Steel Europe company, we've embarked on the biggest and most ambitious journey in our company's history to date – the Zeremis® Journey.

Zeremis – short for zero emissions – is a promise to the planet to become carbon-dioxide-neutral by 2045. The Zeremis® brand represents the path Tata Steel Nederland is taking along with its subsidiaries towards a recycling-oriented world free from carbon dioxide emissions.

Sustainable trading means taking ecological, economic and social cultural aspects into consideration equally so that subsequent generations can enjoy an intact environment and therefore equal opportunities.

The construction and building economy accounts for 38 percent¹ of global CO₂ emissions and is already facing major challenges today that will inevitably intensify when it comes to complying with climate goals.

So that our customers can plan in a way that is socially acceptable with lasting value, our highly qualified employees, alongside long-standing partners, develop products and system solutions for sustainable lightweight metal construction. We're aware of our responsibility towards people and the environment, so we've made the changes necessary for a more sustainable and strategic focus for 2022. We've set ourselves the ambitious goal of becoming climate-neutral at our Netphen-Deuz site by 2032. In doing so, we're aligning ourselves with UN's 17 goals and the operating principles of the Federal Government of Germany.

Goals we can achieve together with you.



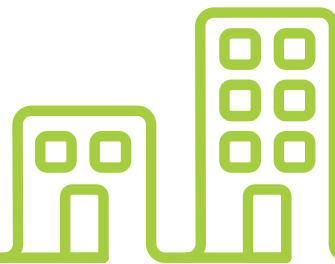
**ZIELE FÜR
NACHHALTIGE
ENTWICKLUNG**

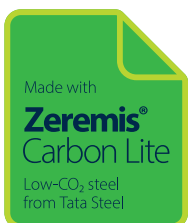
¹ Uno Report "2020 GLOBAL STATUS REPORT FOR BUILDINGS AND CONSTRUCTION"

CONSTRUCTING OUR FUTURE

Our contribution to climate reversal

Since we take climate protection as a company challenge very seriously, we develop product solutions for the construction of sustainable industrial buildings. These allow you to optimise the CO₂ footprint of your projects in a targeted way. Starting with the use of green steel – which can already achieve a CO₂e reduction of up to 90% today – to system solutions for façade and roof greening or solar application on our sandwich elements. The foam of our elements consists of up to 40% of post-industrial recycled contents and the flame retardant we use is halogen-free. In addition to top heat-insulating properties and span widths, we can also offer you a range of coating variants with guarantees of up to 40 years. All this allows us to organise projects both efficiently and sustainably.





Zeremis® Carbon Lite

Certified CO₂e savings

The Zeremis Carbon Lite solution from Tata Steel allows you to achieve CO₂e savings in your Scope 3 emissions. Carbon Lite is based on CO₂e savings projects along the supply chain and is reviewed by the DNV (Det Norske Veritas).

- It allows you to immediately improve your carbon dioxide balance.
- A flexible solution that allows you to select the CO₂e-intensity reduction you need.

Fischer product portfolio with CO₂-reduced steel

Enact change

As a Tata Steel Europe company, we're part of the Zeremis® Journey. A promise to our planet.

In the course of our new sustainability strategy and to support our common goals, we offer all our products and system solutions with the option of CO₂e-reduced steel.

Familiar quality. Less CO₂.

The future's green

Greening for sustainable construction

Façade and roof greening is being used in many, mainly urban, environments to plant free surfaces with an extremely wide range of vegetation. Apart from the aesthetic effect, these green areas also have a positive influence on their environment and the ecological footprint of the building. And they also improve the micro-climate and air quality. The cooling generated in the summer by the shading saves you valuable energy. Positive effects on the building's thermal insulation can also be expected, even if they are not easy to quantify. Greening buildings is more than a well-informed trend. It is an effective measure against the consequences of advancing climate change and is being promoted by many towns, communities and states in the form of financial incentives such as grants, loans or tax incentives, or even technical support for planning and installation.

In principle, nearly every façade and roof can be greened – irrespective of whether they are on a new-build or an existing building (depending on the sandwich elements' approval).



Green façades and roofs

with Fischer Profil

We are investing a great deal in doing more against climate change and for sustainable construction.

That is why Fischer Profil is expanding its product range to include an economical green roof system. Based on our high-quality sandwich panels, we have developed integrated systems for roofs and façades. If required, we can plan and realize your entire green roof system - from planning to the final green roof.

By combining green roofs and facade greening with sandwich panels manufactured by Fischer Profil, you set the course for environmentally conscious and sustainable construction and, in addition, benefit from the various advantages of planted roofs and façades.

The sandwich panels from our carrier product range provide the opportunity to efficiently execute green roof and green façade projects. Together with our long-term partners, we develop innovative system solutions to strengthen your sustainable supply chain.

The benefits of greened roof systems and façades:

- Precaution against heavy rainfall and flooding
- Precaution against heat
- Energy-saving due to cooling (positive effects on thermal insulation)
- Noise reduction
- Better cityscape and quality of life
- Better air quality
- Promotes biodiversity
- Reduces CO₂
- Many national, regional and local incentives*

* Observe applicable regulations and guidelines



FischerTHERM Carrier® Green

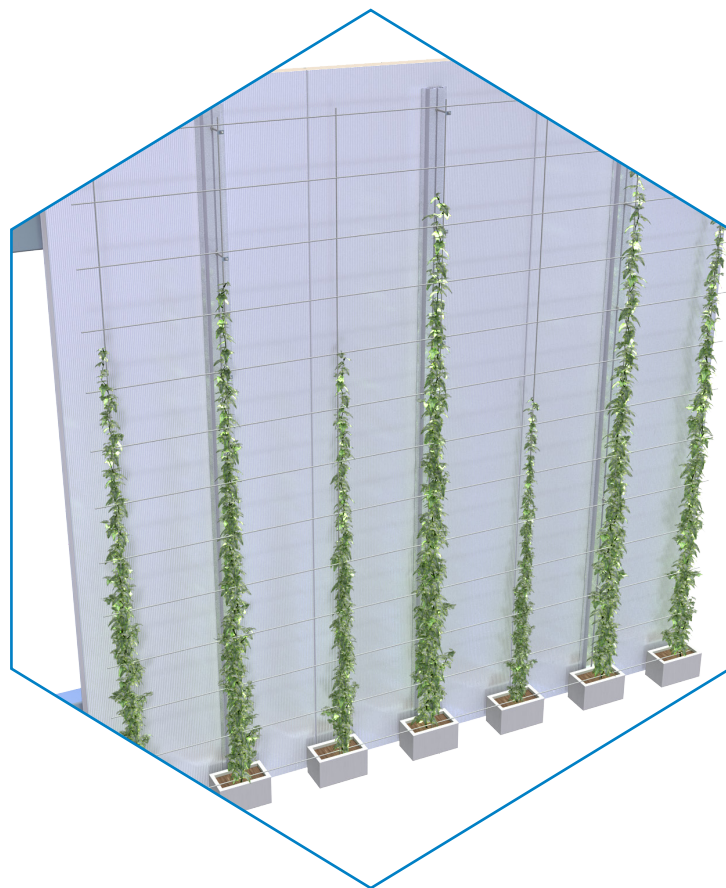
Our multiflexible carrier system for unique façade greening

The innovative FischerTHERM Carrier façade solution combined with the Fischer Carrier rail, allows for a wide range of structuring options of curtain-wall façades in nearly all styles.

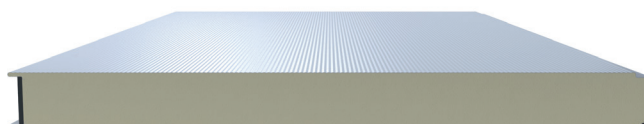
When using the FischerTHERM Carrier Green, the modified Fischer Carrier rail is fastened vertically to the sandwich elements which have been installed horizontally or vertically. The rail is therefore only fastened to the micro-lined outer shell of the sandwich element – additional punctiform heat bridges are therefore prevented.

Threaded slot nuts are slid into the carrier rails, and retainers and appropriate trellis, specifically developed for this purpose, are fastened on to act as a support for the plants.

The plants¹ are planted in soil in front of the façade or in small plant pots. Plants planted in the soil grow at a distance of 150 mm from the façade.

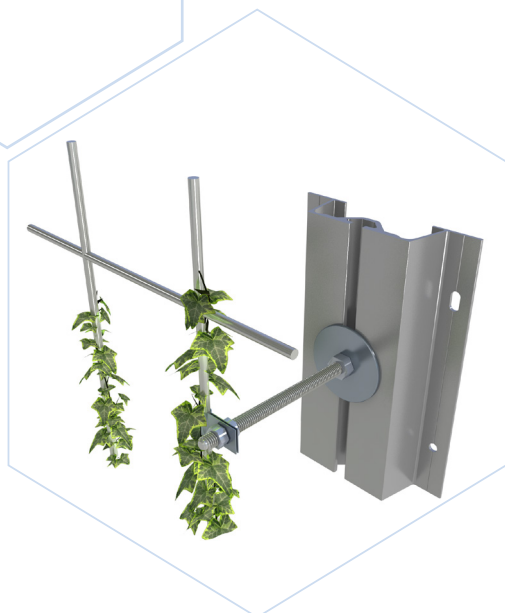


¹Please refer to the FLL Façade Greening Guidelines for suitable plants.



FischerTHERM Carrier sandwich elements are available in thicknesses from 80 to 120 mm.

- The Fischer Carrier rail is fastened to the micro-lined outer shell of the sandwich element
- The retainers, which subsequently support the trellis, are then mounted on the rail systems
- They are 1100 mm wide and the maximum recommended length is 16 metres
- We recommend the covered fixed FischerTHERM Carrier plus sandwich elements in thicknesses of 80-140 mm for areas which do not have a curtain-wall façade. The fixing points are therefore not visible, giving you a uniform appearance.



FischerTHERM Carrier D® Green

System solution for extensive roof greening

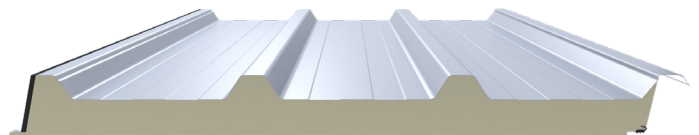
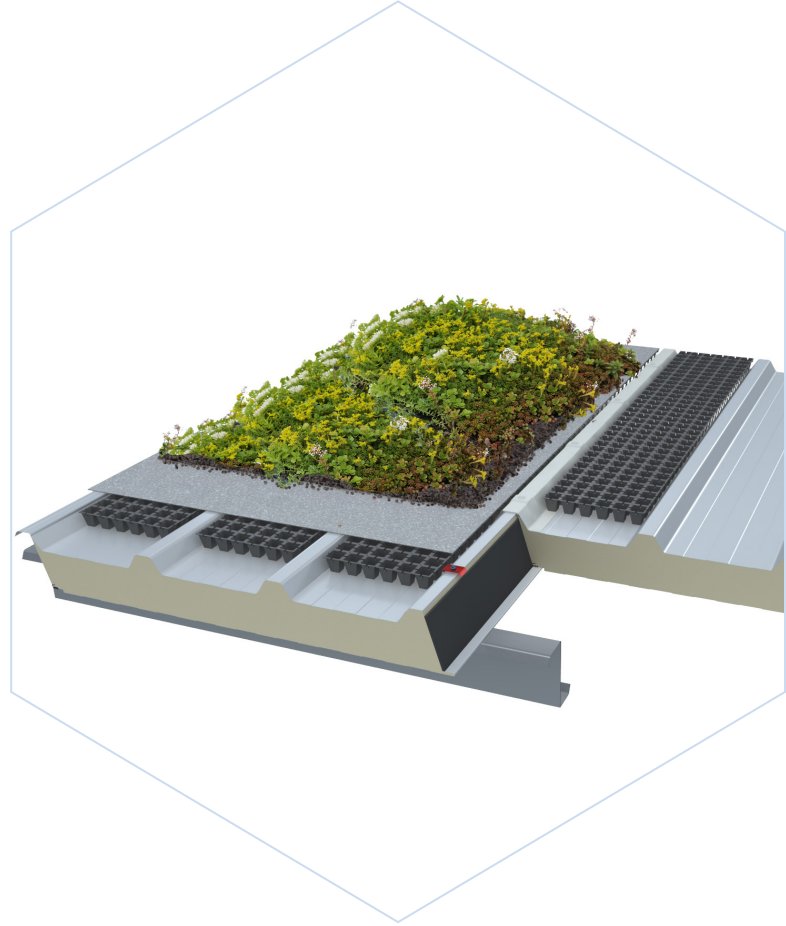
Our roof greening system is based on the FischerTHERM Carrier D sandwich elements. The elements are load-bearing and can therefore be seamlessly combined with our approved systems – without negatively affecting heat protection, airtightness or assembly.

The lateral gaps in the sandwich elements are first sealed in the vicinity of the green roof with a self-adhesive sealing strip (butyl tape). Drainage mats are placed in the beading and are then covered with a fleece filter. The substrate is then filled which acts as the substrate for the sedum mats². Our sandwich elements act as a protection for the roots so no further measures are required in this respect.

All the accessories for the FischerTHERM Carrier D Green System are available from us or one of our partners:

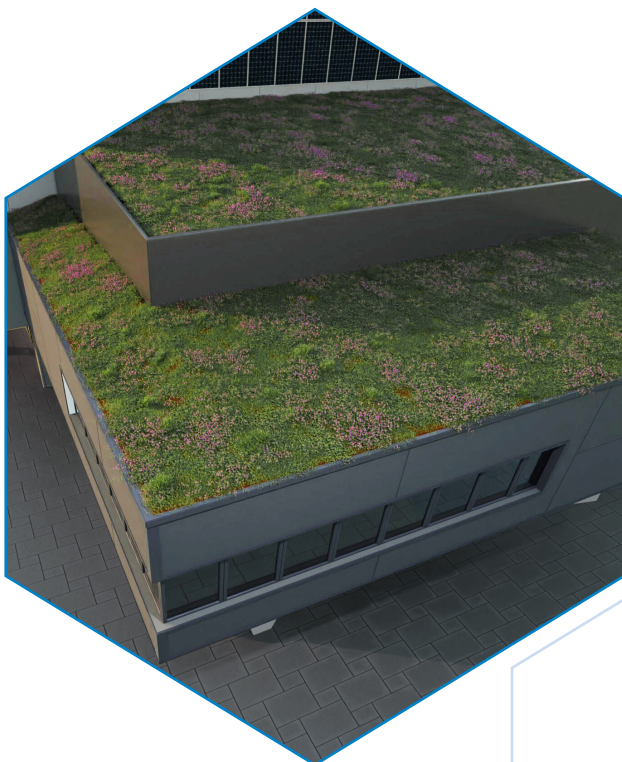
- Drainage mat (FI 92.501)
- Fleece filter (FI 92.502)
- Substrate
- Sedum mat

²Please check the suitability of plants for the location of your building.



FischerTHERM Carrier D sandwich elements are available in thicknesses from 80 to 180 mm.

- The FischerTHERM Multitalent for add-ons such as roof greening
- They are 1000 mm wide and the maximum recommended length is 26.4 metres
- Colorcoat HPS200 Ultra® is the perfect coating



The Fischer DUO-seal

The energy saver for your building envelope

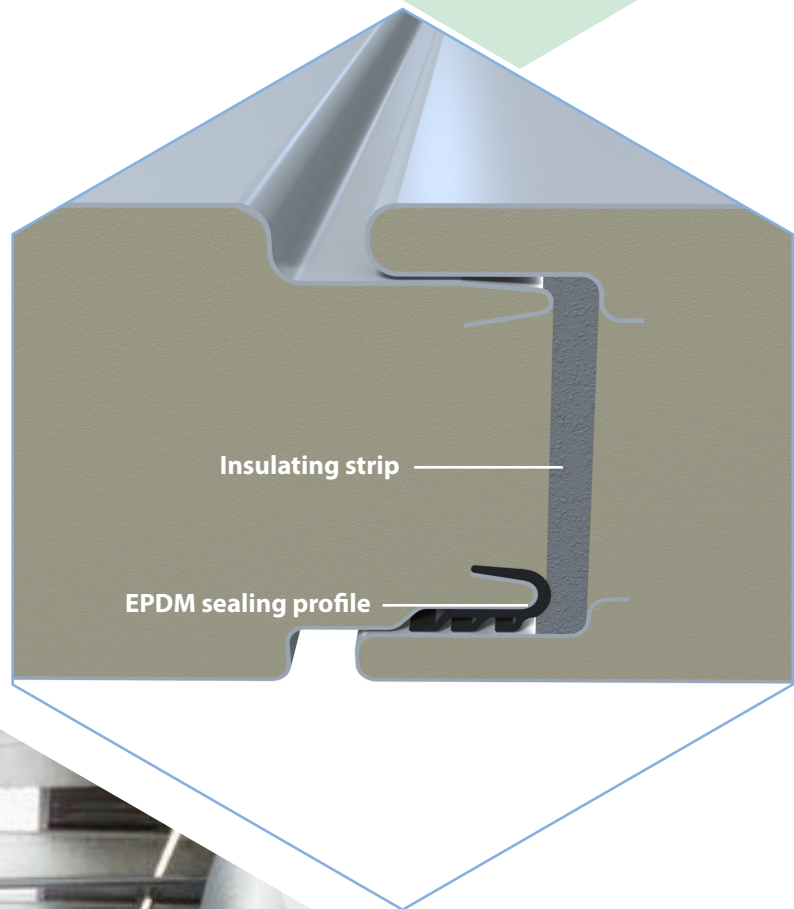


You can now combine efficient heat insulation with highly profitable energy savings and increase the value of your property many times over. Be on the safe side with our optional DUO-seal – ensure good heat protection with maximum airtightness.

When it comes to the joint permeability in the long term, the FischerTHERM elements with the DUO-seal have a value 100 times better ($a=0.001$) than the required target value.

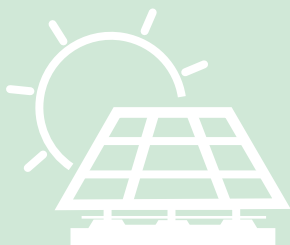
Air permeability is verified in accordance with EN 14509, A.12 and EN 12114. Thanks to the excellent joint air tightness, up to $\text{€}2/\text{m}^2$ can be saved annually in terms of heating costs. These savings are based on the heat generation costs of $\text{€}0.08/\text{kWh}$.

* The report by RWTH Aachen University on the checked and verified long-term behaviour is available upon request.



Zeremis® Journey products from Fischer Pro-

Construction material decisions are being scrutinised during the planning process, critical discussion of the sustainability of construction materials is gaining traction: these are also a key element of our investment plans. For this reason, we are not only investing in optimising our building infrastructures and our production processes, but are also introducing a range of innovative green product solutions.



To achieve our climate protection goals, and above all to limit global warming to 1.5 degrees Celsius, we are in the process of developing more sustainable system solutions.

As retrofitting with solar or photovoltaic plants can also make a contribution to climate protection.



Reducing the carbon footprint even further

The solution for your green building projects and climate-neutral building planning with a sustainability certificate.

We started producing the well-known Fischer profiles from green steel in December 2022. As a Tata Steel Europe company, we have the opportunity to issue certificates for the use of Zeremis CarbonLite.

Yet another step in the direction of decarbonisation.

(See page 5 for more information)

USE OF
GREEN STEEL



www.fischerprofil.de

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Fischer Profil GmbH
A Tata Steel company

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Fischer Profil GmbH

Fischer Profil GmbH
Waldstrasse 67
57250 Netphen-Deuz
Germany

Tel. +49 (0) 2737 508-0
E-mail info@fischerprofil.de

Fischer Profil GmbH, registered in Germany, Siegen Magistrate's Court HRB 3038.
Company headquarters Waldstrasse 67, 57250 Netphen-Deuz, Germany

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