



---

A cleaner world thanks  
to sustainable glass



Sustainability brochure  
**FINEO 2021**

FINEO: Innovative technology in a sustainable jacket

04

Made in Belgium

06

More sustainable than double and triple glazing

08

With certificates on board towards a green European construction industry

10

Sustainable Development Goals

13

Looking towards the future

15

## Foreword



Dear reader,

'Sustainability' is a buzzword, and rightly so. More and more people and companies are doing everything they can to keep their **ecological footprint as low as possible**. For us it is logic itself, and the goal of constantly reducing emissions is something our entire company works hard at. We consider the environmental aspect in every decision we make, no matter how small it may seem. Thanks to the continuous development of FINEO, I can proudly say that every day we take another step **towards a carbon neutral company**.

With FINEO vacuum glass, we wanted to create an alternative aesthetic to thicker glazing that was also unrivalled ecologically. Since the beginning, **FINEO has been the green alternative** because it is **more energy efficient**, production is done with fewer and **exclusively non-polluting materials**. It is **more sustainable, 100% recyclable** and **locally produced**. Thanks to this lower ecological footprint, more and more people are opting for FINEO, realising that the actions of today are the consequences of tomorrow.

I firmly believe in a prosperous future for both people and planet. As a business leader, it is my duty to ensure that everyone is pursuing the same goals and that we are all doing everything we can to become greener. Every little bit helps, but as a large company we can carry just that little bit more weight. That is why we always go **a step further than what the environmental legislation prescribes**.

We are proud of what we have already achieved, but we keep a close eye on our **goals**. To make sure we are on the right track, we have submitted applications for several **sustainability certificates**. These certificates will allow builders to confidently use FINEO glass as we work towards a **green European construction industry**. We hope our efforts will inspire other companies to do the same.

More than ever, it is the **responsibility of each of us** to ensure that future generations inherit a world that develops in a sustainable way. When I see our product, I become enthusiastic about the future. FINEO glass made today will outlive me and help provide a cleaner world for my children. The more people we can convince to opt for FINEO, the better the future looks.

I wish you a pleasant and interesting read of our sustainability brochure.

**Serge Martin,**  
CEO FINEO

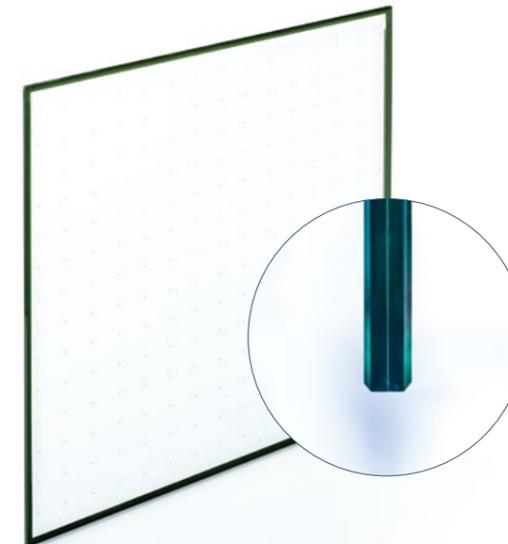
## FINEO: Sustainable innovative technology

After years of development, FINEO was introduced to the market in 2019 by parent company AGC Glass Europe. FINEO is **the latest generation of vacuum insulating glass**. Thanks to its advanced vacuum technology, the glazing combines a **minimal glass thickness with exceptional thermal and acoustic comfort**. The product is often described as the ideal combination of the elegance of single glazing with the insulating advantages of triple glazing. Moreover, FINEO has no inert gases or organic seals which means it will not deteriorate over time.

Many architects are enthusiastic about this unique piece of technology. In the **renovation and restoration** of old buildings, FINEO can simply replace the existing single glazing, allowing the original window frames to be retained. In **new construction**, FINEO windows excel because of the unique aesthetic appearance combined with a high insulation value. The lighter weight of FINEO allows windows to be installed more easily and quickly than double or triple glazing. Already there is a long list of projects that have used FINEO glass in, among other countries, Belgium, the Netherlands, Germany, Ireland, Switzerland and the United Kingdom.



## The six big benefits of FINEO



### 0.7 W/(m<sup>2</sup>.K)

FINEO glass has a **thermal insulation coefficient of 0.7 W/(m<sup>2</sup>.K)**, which equals that of **triple glazing**. Meaning FINEO will keep the heat in and the cold out no matter what the temperature is outside. This high degree of insulation saves a lot of energy costs.

### 15%

FINEO vacuum glazing allows **15% more natural light than triple glazing**, which is good for the general wellbeing of the occupants.

### 6 dB

The vacuum technology has the added advantage of providing outstanding sound insulation, especially from street noise. FINEO glass **dampens an additional 6 decibels**, making it the best on the market and far outperforming double or triple glazing.

### 7.7 mm

With a **thickness of only 7.7 mm**, FINEO glass is more than three times thinner than double glazing and almost six times thinner than triple glazing. This difference allows for more ecological transportation and easier installation due to the much lighter weight of the glass.

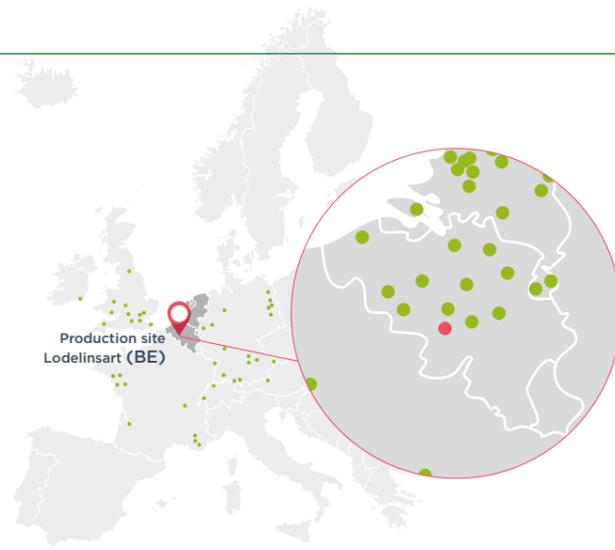
### 15 years

Customers receive an **exceptional 15-year guarantee**. In addition, FINEO does not deteriorate over time and therefore lasts much longer than double or triple glazing.

### 100%

FINEO is made of **100% recyclable, lead-free materials**. Production aims for zero waste, so the glass is reused to make a new window.

## Made in Belgium



FINEO is **produced in Lodelinsart** (Belgium). This is a very conscious choice because the Belgian electricity network emits **little carbon**. The ecological footprint would be much larger if the production were to take place in another country. Moreover, in 2019, FINEO installed a **large number of solar panels** allowing the company to operate as much as possible on **green electricity generated on-site**. In other words, FINEO is a thoroughly local product, where sustainability and high quality go hand in hand.



*We aim to make our production a bit more sustainable every year.*

## Smart transport ensures low emissions

FINEO glass is **lighter and thinner** than double or **triple glazing**. This means that **more glass sheets are taken per journey** and so fewer lorries need to take to the road. Thanks to Belgium's **central location**, **logistically efficient** exports are possible to neighbouring countries with minimum emissions. As a result, the emissions from the transport of FINEO are much lower than those of other manufacturers.

## FINEO goes for the circular economy

Reuse is very important. FINEO glass itself is 100% recyclable and doesn't lose any of its high quality. In 2020, **97.1% of all waste was reused**, by the company itself, or by suppliers or contractors. In addition, **1% was incinerated**, from which energy was extracted. Finally, **in 2020, only 1.9% went to landfill**. While this is certainly a good figure, the goal is 0%.

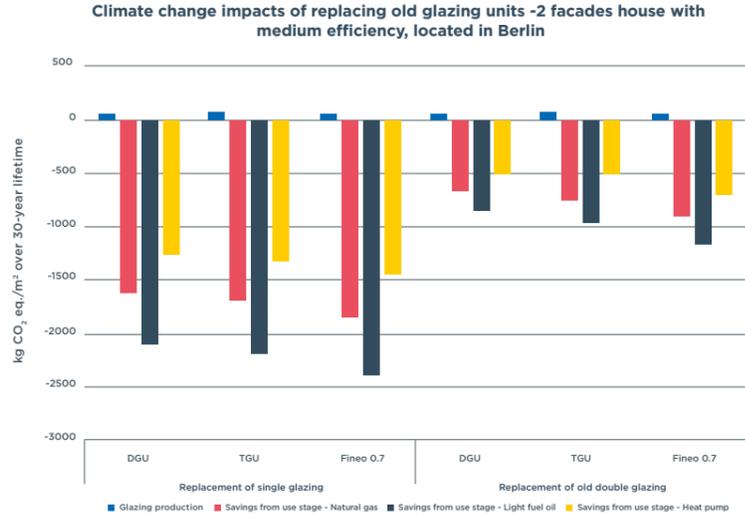
Is 0% possible? Between 1998 and 2020, parent company AGC Glass Europe succeeded in reducing the amount of waste going to landfill by 95%. We are convinced that FINEO **will be waste neutral within a few years**.



# More sustainable than double and triple glazing

Looking at the total lifespan, **FINEO glass saves much more on greenhouse gases than double and triple glazing.** From our Environmental Product Declaration, we can see that the constant efforts to reduce emissions in the production of FINEO are quickly paying off. The ecological footprint was much lower in 2021 compared to 2020, and it will continue to improve.

Furthermore, the graph below shows a comparison of the climate change impacts of replacing old glazing units. Indeed, making the transition from single glazing to FINEO glass provides annual savings that are the CO2 equivalent of 40 cars driving 15,000 kilometers per year. In addition, unlike other glass, FINEO is 100% recyclable, without loss of quality. While double or triple glazing deteriorates over time, FINEO maintains its performance.



\* DGU: Double Glazing Unit  
 \* TGU: Triple Glazing Unit



## With certificates on board towards a green European construction industry

The European construction industry is in full transition to a **new, greener era**. There are four main reasons for this:

1. Stricter legislation for sustainable construction;
2. The market shift towards green buildings is becoming the new standard;
3. Rising energy prices (e.g. gas and electricity) and the uncertainty about this creates the need to integrate energy efficient and recyclable/recycled materials into the building;
4. The changing consumer preference towards sustainable construction materials.

Buildings currently consume 40% of all electricity in Europe and are responsible for 36% of Europe's CO<sub>2</sub> emissions. The European Commission has set the goal of reducing **CO<sub>2</sub> building emissions by 90% by 2050**. This can certainly be achieved if old buildings are fully renovated with new construction materials, such as vacuum glass.

Evaluation systems and certificates have been developed to determine whether a building is sustainable or not. In Europe, the most commonly used **evaluation systems** are the BREEAM (Building Research Establishment Environmental Assessment Method) and the LEED® (Leadership in Energy and Environmental Design). Among other things, these procedures assess how efficiently energy and water are used in order to keep the ecological footprint low. We expect that the number of buildings with such a classification will increase sharply in the near future.

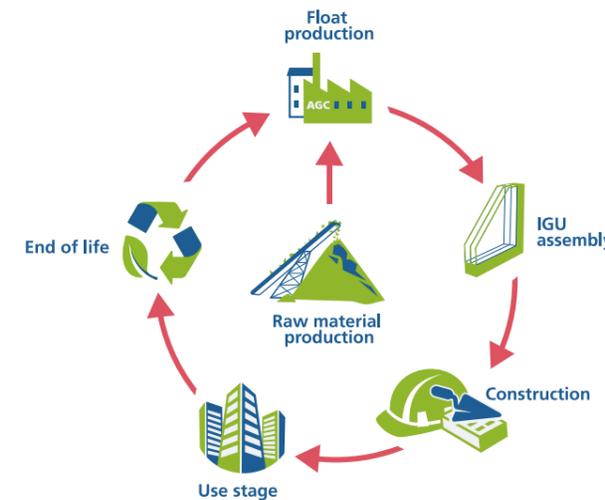
In order to obtain such a license, it is necessary to use materials that have **certificates such as the Environmental Product Declaration or Cradle to Cradle\*\***. These certificates will become mandatory in many European countries for renovations or new buildings. FINEO has increasingly focused on these certificates in recent years.

*In the near future, environmental certificates will become increasingly important in the European construction industry.*

## Certificates achieved



The **Environmental Product Declaration** is a certificate where a company scientifically identifies the **climate impact of its products** by means of a Life Cycle Analysis. In this way, a company can prove that it operates in an **environmentally friendly** way. Currently, FINEO has EPD type 1, which was achieved through self-evaluation.



The **Life Cycle Analysis** is an internationally accepted scientific method used to determine the **ecological performance** throughout the various life stages of a product. It shows clearly where there is room for product optimisation. It also offers transparency, so an interested party can quickly see the areas where the product scores well and those with a lower score.

The LCA shows that raw materials must still be extracted for FINEO. However, recycled materials are used in increasingly bigger proportion. The ultimate goal is to completely eliminate raw materials from the production process. The LCA for FINEO will be verified in 2022 in accordance with the European standard.

## Certificates pending



As stated above, FINEO has an **Environmental Product Declaration type 1**. EPD type 4 is currently under consideration, which means that an independent party issues the certificate.

## Cradle to Cradle®



Cradle to Cradle® evaluates the **overall sustainability** of a product throughout its entire life cycle. This certificate goes beyond product quality, focussing also on the **positive effects at the economic, ecological and social levels**.

To do this, the product must meet strict requirements in the following five areas: material health, reuse of materials, renewable energy, water and soil stewardship and social fairness. FINEO is made from AGC's base glass, which is Cradle to Cradle Certified®. FINEO is currently under application to receive the certificate itself.

## In the near future



The VOC (volatile organic compound) emissions test ensures that there is **good air quality** within a residence or building. It is awarded to products that **do not emit any hazardous substances**. FINEO does not contain any hazardous substances and will receive this certificate shortly.



FINEO does not contain any **hazardous chemicals** and meets the standards of the Healthy Materials Lab.

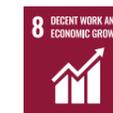
*Sustainability does not start or stop with production, it is a mindset that all stakeholders must bear.*

## FINEO follows the Sustainable Development Goals

Apart from the control mechanisms within the company, FINEO production also complies with objectives imposed by independent organisations. For example, in 2015, the **United Nations** drew up 17 Sustainable Development Goals to help **countries and companies worldwide to grow economically without losing sight of the planet**. FINEO actively helps to achieve these goals. The company, scoring high on the following aspects:



**Good health and well-being:** increased living comfort without toxic substances in the glass, thanks to FINEO vacuum technology.



**Decent work and economic growth:** FINEO is committed to a safe and inclusive workplace. Our employees can develop themselves; like this we create personal and sustainable economic growth.



**Industry, innovation and infrastructure:** we are committed to constant innovation to make FINEO products more energy efficient.



**Sustainable cities and communities:** the innovative insulating glass reduces energy consumption for heating, cooling and light. In this way it contributes to the reduction of greenhouse gases.



**Responsible consumption and production:** the glass is lead-free and 100% recyclable.

## A young company led by a global player

FINEO may only have been founded in 2019, but the **parent company AGC Glass Europe** has **more than 100 years of experience** in the glass industry and has been developing insulating glass for 60 years.

AGC is known as a **pioneer in the development of new glass technologies**, resolutely seeking better performance combined with a longer lifespan. The company develops its products with the **most innovative techniques to minimise the environmental impact**. 50% of the budget for research and development goes towards creating and developing sustainable products, solutions and production.

The most recent major development has been FINEO glass: an extremely sustainable product, due to the high insulation value, 100% recyclability and low transport emissions.

### A couple of milestones:

- **Efficient energy management:** The energy needed to melt the glass has been reduced ten times over 140 years.
- **Recycling:** AGC avoids primary raw materials and commits fully to the recycling of glass shards. In addition, 98% of all packaging is reused.
- **Limiting water use:** Ninety percent of all water used is reused for cooling. By means of a few innovative initiatives in various factories, AGC Glass Europe managed to reduce water consumption by 69% in 22 years.
- **Green transport:** In 2020, 56% of all raw materials were imported by ships and trains. This kept 50,170 lorries off the road. That is about 600 km of lorries!

*For every tonne of CO<sub>2</sub> emitted by FINEO, the use of FINEO glass avoids over 11 tonnes of CO<sub>2</sub>.*



## Looking towards the future

As you have read in this FINEO sustainability brochure, a great deal of effort has been made in recent years to emit less greenhouse gases, less waste and to consume less water. FINEO was developed to be 100% recyclable and it is the company's intention to achieve this in practice as well.

The path we have taken is the right one, but there is still a long way to go. To feel satisfied is the start of decline, which is why the company keeps its eye on tomorrow, always looking for improvements, however small they may be.

To stay focused, **six environmental goals** have been set for 2030. These goals are:



**30%**  
less greenhouse  
gases



**20%**  
less energy  
consumption



**15%**  
less water  
consumption



**NO**  
waste to  
landfill



**LESS**  
waste  
production



**GREEN**  
product  
design



Looking to a  
green future.

**FINEO**  
by AGC

Avenue Jean Monnet 4  
1348 Louvain-La-Neuve  
Belgium

Tel.: +32 2 409 30 00

[www.fineoglass.eu](http://www.fineoglass.eu)

