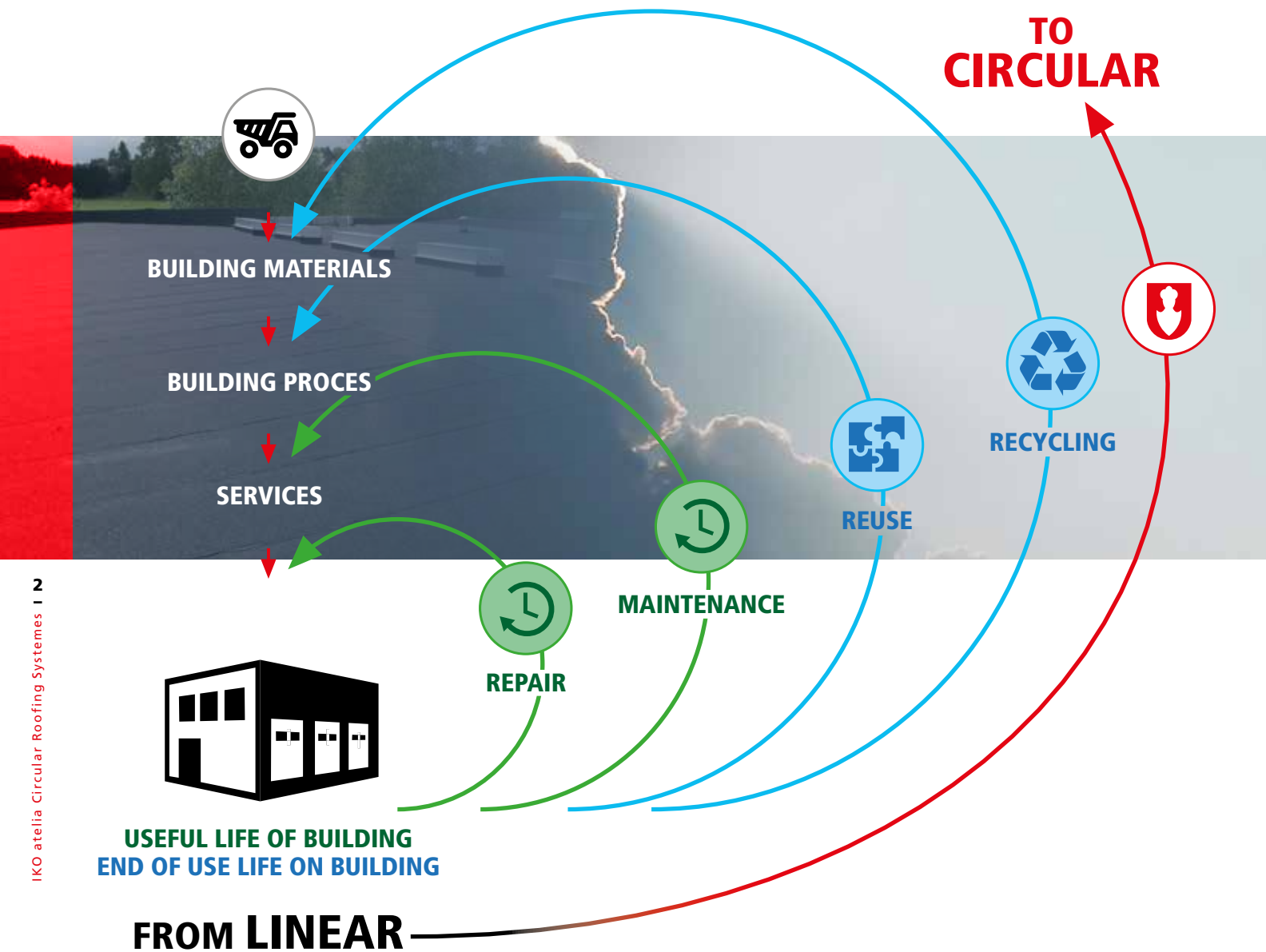


CIRCULAR **ROOFING SYSTEMS**



 **IKO** αtelix

Circularity in the building process



Why?

The old linear model is running up against its limits. The gap between supply and demand for primary raw materials continues to grow. This trend is now also being seen in finished products..

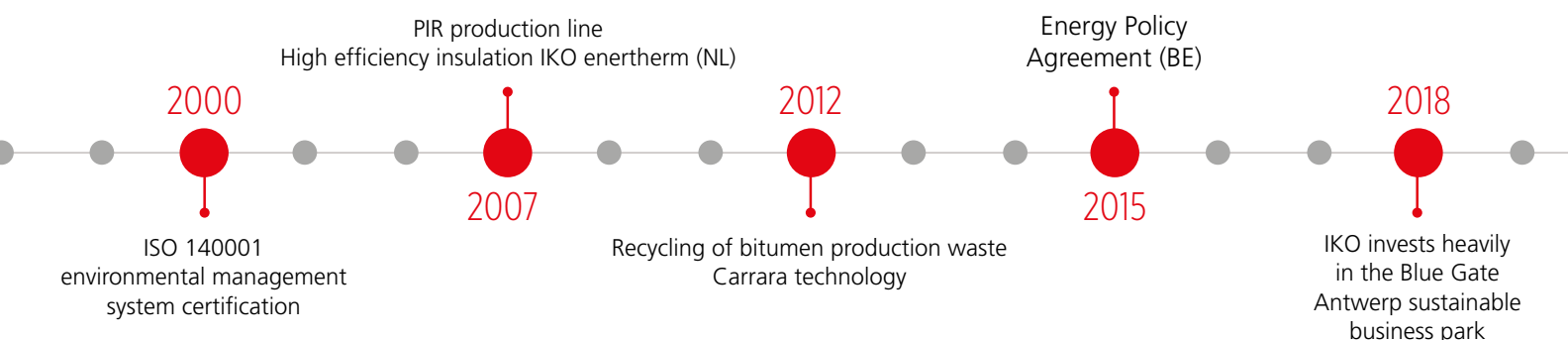
For whom?

For you! Whether you're a building owner, architect or building professional. You no longer ask for responsible building solutions, you just demand them!

European objectives

2030: 50% reduction in primary raw materials
2050: fully circular and waste-free economy

IKO: THE ROAD TO





IKO atelia

With energy efficient and responsible roofing products and systems, we help our customers comply with ever stringent requirements in the field of energy efficiency and sustainable building.

By the way, did you know that construction in Europe accounts for:

one third of all waste
40% of energy usage
36% of CO₂ emissions

From sustainable products...

Each system consists of multiple layers. As a manufacturer of high quality roofing materials and PIR insulation, IKO enables building professionals, more than ever, to future-proof their building projects.

...from 1 manufacturer...

The IKO roofing systems are produced completely in-house and consist of an ingenious combination of extensively tested and perfectly compatible premium materials. An IKO roofing system provides you with a proven and extremely sustainable total solution for the roof of your building.

...to IKO atelia circular roofing systems!

Three of our IKO roofing systems are fully circular roofing systems. At the end of the useful life of the roof, the system is fully removable. The materials can now even be taken back. This allows us to reuse them as raw material for new waterproofing products.

Did you know that? The lifespan of an IKO atelia roofing system is no less than 35 years?

*After fitting the old cap sheet with a durable overlay, it is as much as 70 years!
The new system can also be retrofitted with additional insulation but will still be as removable as before.*

CIRCULARITY



4 Circular IKO principles



1 | CIRCULAR SYSTEM DESIGN

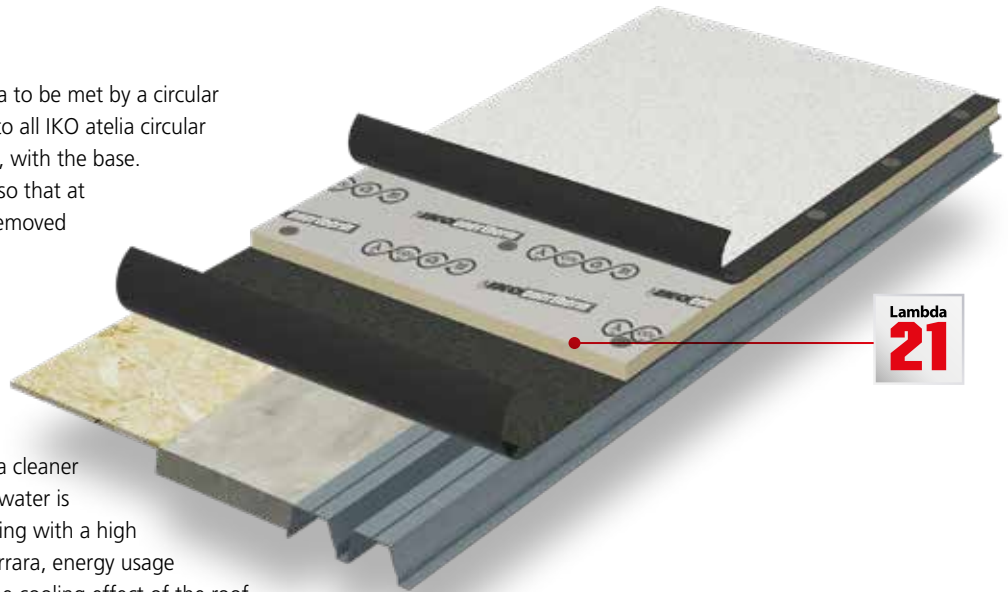
Each roof has a second life. The IKO atelia circular roofs are suitable for reuse and recycling. In short, urban mining^(*) at its best.

We have made sure that the criteria to be met by a circular roofing system are incorporated into all IKO atelia circular roofing systems. It starts, of course, with the base. The system as a whole is made up so that at the end of its useful life it can be removed without the individual components being contaminated with parts or residues of the other materials used.

During its useful life the IKO atelia roofing system also contributes to a cleaner world. With bitumen, reuse of rainwater is perfectly safe. If a white roof covering with a high SRI value is applied, such as IKO carrara, energy usage in the building is reduced due to the cooling effect of the roof. Roof-mounted installations also deliver a higher efficiency. The bituminous cap sheet of an IKO atelia system, both in a single and a two-ply system or even with an overlay on top of it, can be easily separated from the underlying IKO enertherm Atelia insulation material. The also applies to the vapour barrier layer that is an integral part of the IKO atelia circular roofing system. The bitumen that is recovered can always be used as secondary raw material for new bitumen roofing materials.

This process will repeat itself again and again, so that bitumen is infinitely recyclable.

The IKO enertherm Atelia PIR insulation that is recovered at the end of the service life has retained all its characteristics and is fully reusable for various new insulation applications. Here, too, no waste stream is generated at the end of the roof's service life.



Lambda
21

The lambda value of 0.021 W/(m.K) of IKO enertherm Atelia PIR insulation allows for a slimmer construction that still meets the efficiency requirements.

LAMBDA 21

= thinner insulation
= slim construction
= less transport
= less CO₂ emissions

In this way, your building will throughout its lifespan serve as a raw material warehouse for the future. This is known as urban mining

^{*} Urban Mining is the recycling of precious raw materials from urban waste. It is an essential component of the circular economy, in efforts to prevent the depletion of natural resources and to control global warming.





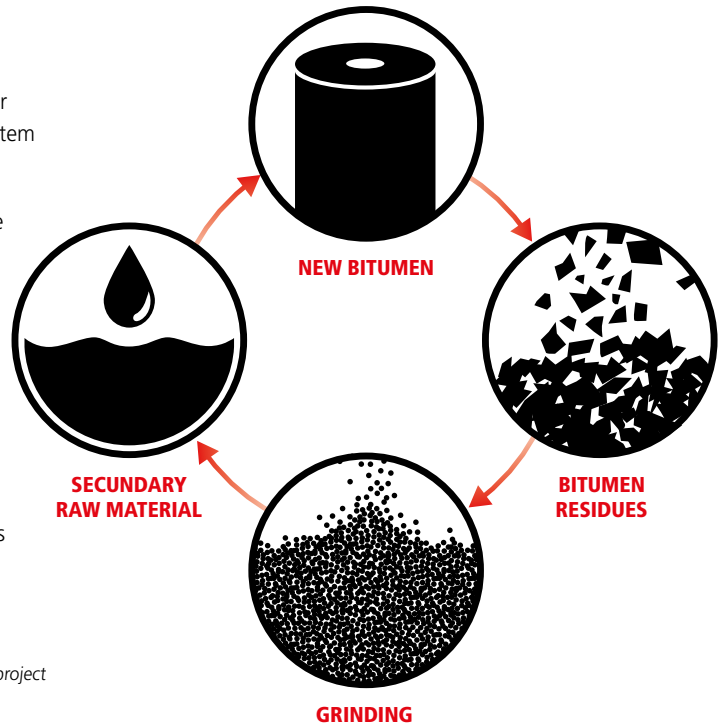
2 | CIRCULAR PRODUCT DESIGN

The different layers of the IKO atelia circular roofing systems are made with a maximum share of secondary raw materials.

Each roofing system, whether removable or not, is composed of individual components. That is exactly the essence of circular design. Each individual component of an IKO atelia roofing system is designed with circularity in mind.

IKO places particular R&D focus on further increasing the share of secondary raw materials from which the products are made. This is a continuous process in which the balance between quality, processability of the products, and the maximum feasible share of secondary raw materials is monitored. Our ambition is to continually increase the share of secondary raw materials while ensuring full compliance with our high quality requirements.

Many of the IKO atelia bitumen products already consists of at least 20% of secondary raw materials. Our primary goal here is to minimise the use of primary raw materials in the IKO atelia bitumen products.



All the information and documentation you need for your circular Atelia project can be found on our IKO atelia website: atelia.iko.com.nl.





3 | MAXIMUM SERVICE LIFE

Postponing end-of-life through periodic maintenance.

It is essential to ensure that the systems and products have the longest possible service life. Only when everything has been done to ensure the maximum service life of a roofing system do we proceed with the removal, reuse or recycling of the residual materials.

We are going back to what we used to think of as normal. "Before replacing something that's broken, we check whether it can be repaired."

First of all, we want to prevent that moment from happening, or in any case postpone it as long as possible by performing preventive maintenance on the roofing system. Bitumen is the ideal material for this and also allows corrective maintenance to be carried out. It is always compatible with the bituminous substrate on which the repair is to be made.

It is even recommended in the medium term to provide the entire roof with a completely new cap sheet, either or not in combination with an extra IKO enertherm Atelia insulation package. This will simply double the lifespan of the system. Two overlays will enable the Atelia roofing system to achieve an expected service life of over 100 years. In this way, an IKO atelia roof will in most cases survive the building on which it is installed. With an IKO atelia circular roofing system, the whole system will, in the end, be just as circular and qualitative as when it was first installed.



With an overlay the 35-year minimum lifespan of an IKO atelia roof is simply doubled.



4 | THE IKO WARRANTY

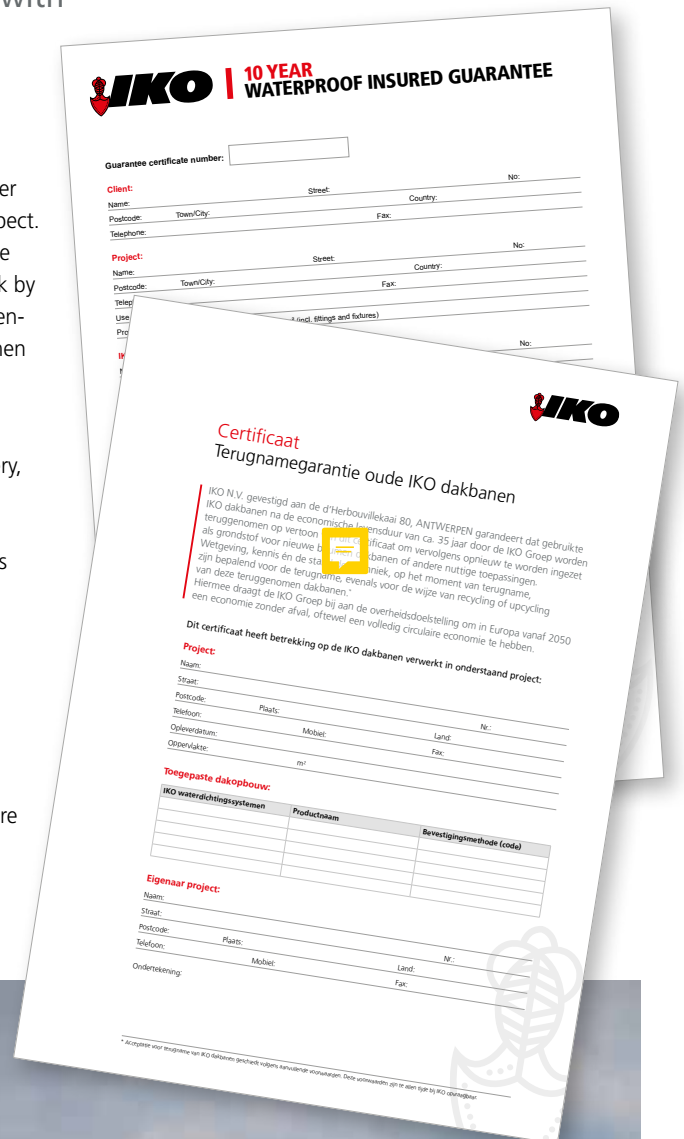
IKO supplies circular roofing systems with an insured warranty and take-back certificate.

Because we are convinced of the need to take into account the end-of-life moment already in the design stage of a building, as supplier of the products and systems, we also take our responsibility in this respect. Each IKO atelia roofing system comes with an insured warranty and the promise that the Atelia bitumen roofing membranes can be taken back by IKO after a period of at least 35 years. We have developed a comprehensive take-back policy. The returned residual bitumen membranes are then reused by us as (secondary) raw material.

To support our efforts in this regard, IKO is currently investing in a substantial expansion of its state-of-the-art bitumen recycling machinery, which sets the standard in our industry. This recycling facility, which is fully integrated into our fully automatic production lines for bitumen roofing membranes, processes production residues, bitumen trimmings from the construction site but also old IKO Atelia roofs into new, circular bitumen roofing membranes.

In addition, IKO provides proper support for your circular challenges at every stage of the process.

- Insured warranty
- Specifications service
- Always the appropriate certificates; security for now and in the future
- Theoretical and practical training at the IKO Experience Center
- Project site start-up and supervision
- Digital support



10 YEAR WATERPROOF INSURED GUARANTEE

Guarantee certificate number:

Client: Name: Street: Country:
 Postcode: Town/City: Fax:
 Telephone:

Project: Name: Street: Country:
 Postcode: Town/City: Fax:
 Telephone: (Land, fittings and fixtures)

Certificaat Terugnagegarantie oude IKO dakbanen

IKO N.V. gevestigd aan de d'Herbouillekaai 80, ANTWERPEN garandeert dat gebruikte IKO dakbanen na de economische levensduur van ca. 35 jaar door de IKO Groep worden teruggenomen op verzoek van de dakwerker. Het certificaat om vervolgens opnieuw te worden ingezet als grondstof voor nieuwe bitumen dakbanen of andere nuttige toepassingen. Het is de verantwoordelijkheid van de dakwerker, op het moment van terugname, zijn bepalend voor de terugname, evenals voor de wijze van recycling of upcycling van deze teruggenomen dakbanen. Hiermee draagt de IKO Groep bij aan de overheidsdoelstelling om in Europa vanaf 2050 een economie zonder afval, oftewel een volledig circulaire economie te hebben.

Dit certificaat heeft betrekking op de IKO dakbanen verwerkt in onderstaand project:

Project: Naam: Nr.:
 Straat:
 Postcode: Plaats:
 Telefoon: Mobiel: Land:
 Opbouwjaar: Fax:
 met

Toegepaste dakopbouw:

IKO waterdichtingssysteem	Productnaam	Bevestigingsmethode (oud)

Eigenaar project: Naam:
 Straat:
 Postcode: Plaats:
 Telefoon: Mobiel: Land:
 Ondertekening: Fax:

* Accijns voor terugname van IKO dakbanen wordt volgens huidige wetgeving betaald. Deze accijns wordt niet in aanmerking genomen bij de afname van de dakbanen.

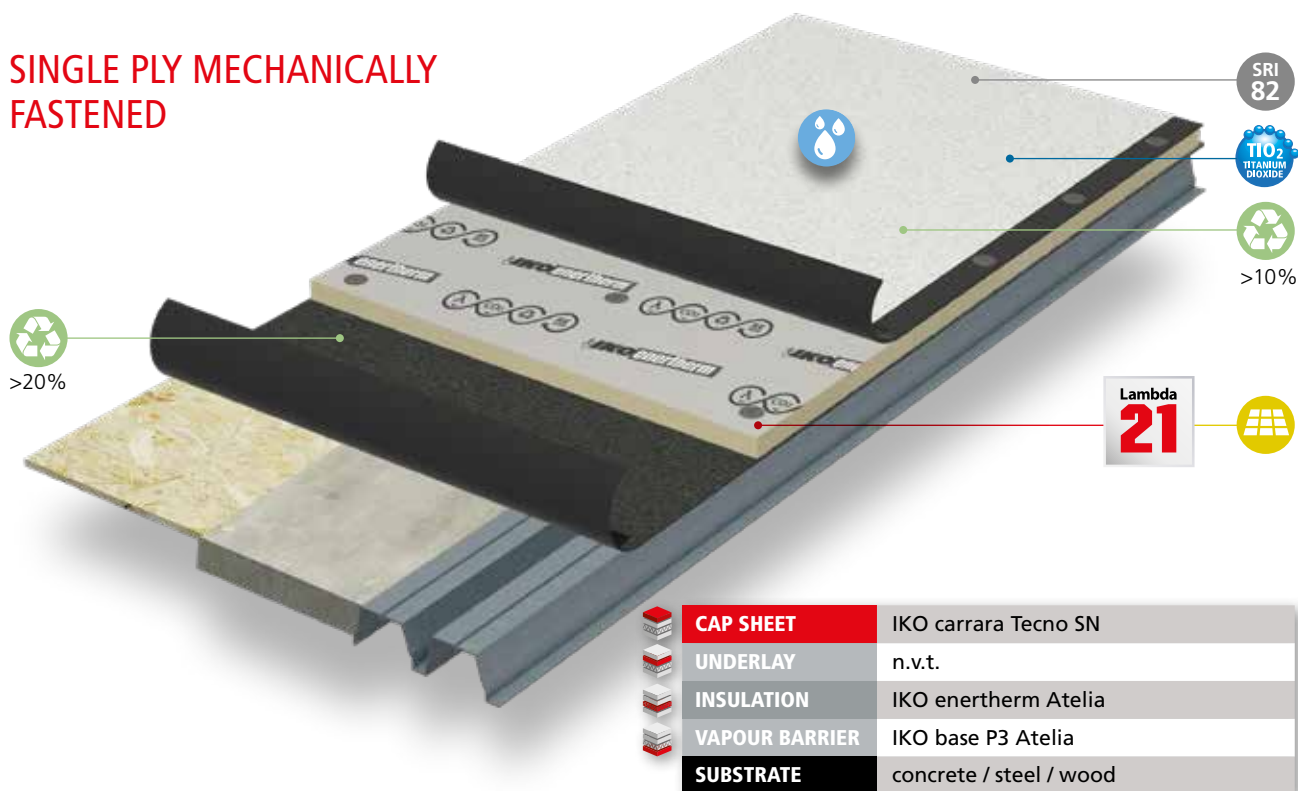


The IKO Experience Center offers tailor-made training services. You will learn how an IKO atelia circular roofing system is installed and removed in theory and in practice.

ENERGY ROOFS

IKO atelia - Circular roofing systems

SINGLE PLY MECHANICALLY FASTENED



TWO-PLY MECHANICALLY FASTENED



TWO-PLY MECHANICALLY FASTENED



>20%



>20%

SRI
45

TiO₂
TITANIUM
DIOXIDE



>15%

Lambda
21



Suitable for rainwater recovery

SRI

Cooling and reflective to save energy

TiO₂
TITANIUM
DIOXIDE

Air-purifying effect thanks to titanium dioxide



Temporary waterproofing possible



Share of secondary raw material



Highly suitable for installation of solar panels



CAP SHEET

IKO powergum 4 AW/F Atelia

UNDERLAY

IKO base P3 Atelia

INSULATION

IKO enertherm Atelia

VAPOUR BARRIER

IKO base P3 Atelia

SUBSTRATE

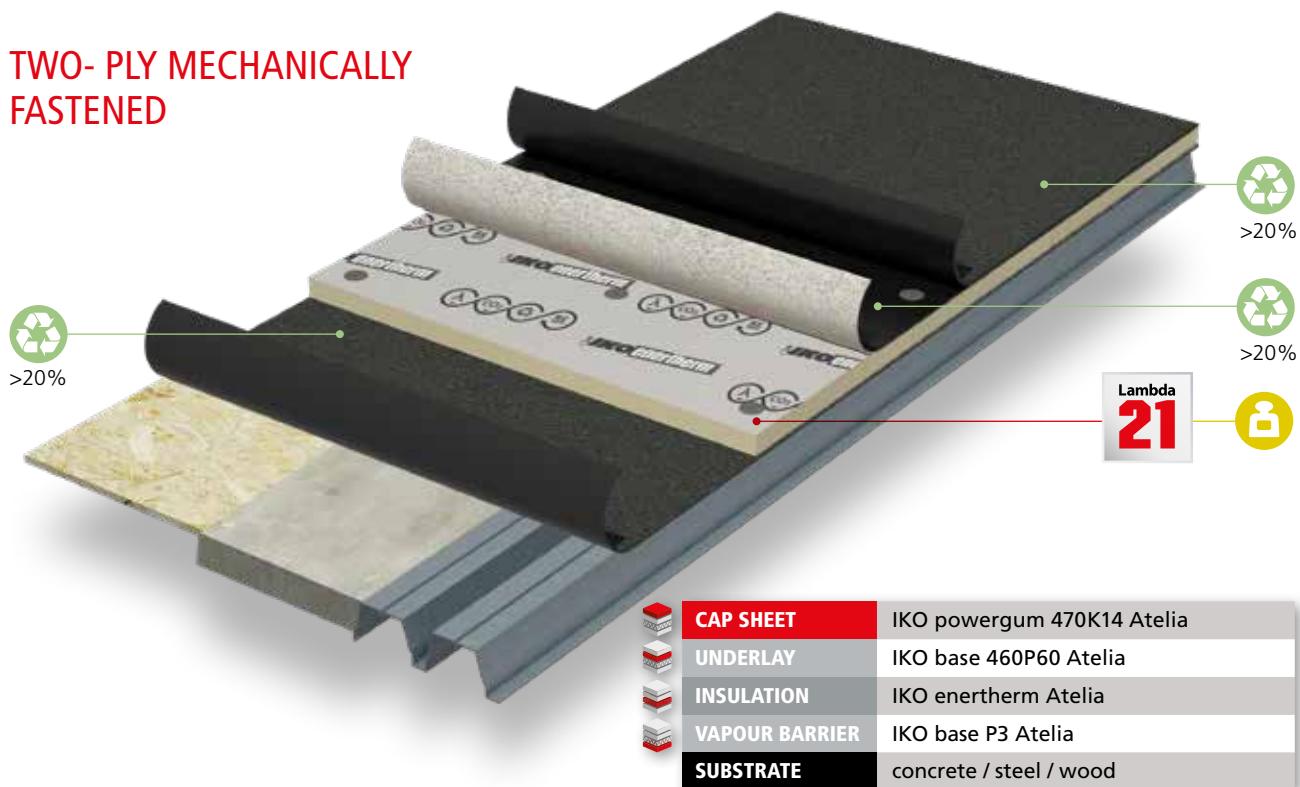
concrete / steel / wood

At IKO, we are taking significant steps on our Road to Circularity. We invite you to join us on this journey. We call on you to assist us in designing, drawing and building the ultimate circular system. Together we can make the world a little better!

DAKEN OP MAAT

IKO atelia - Circulaire daksystemen

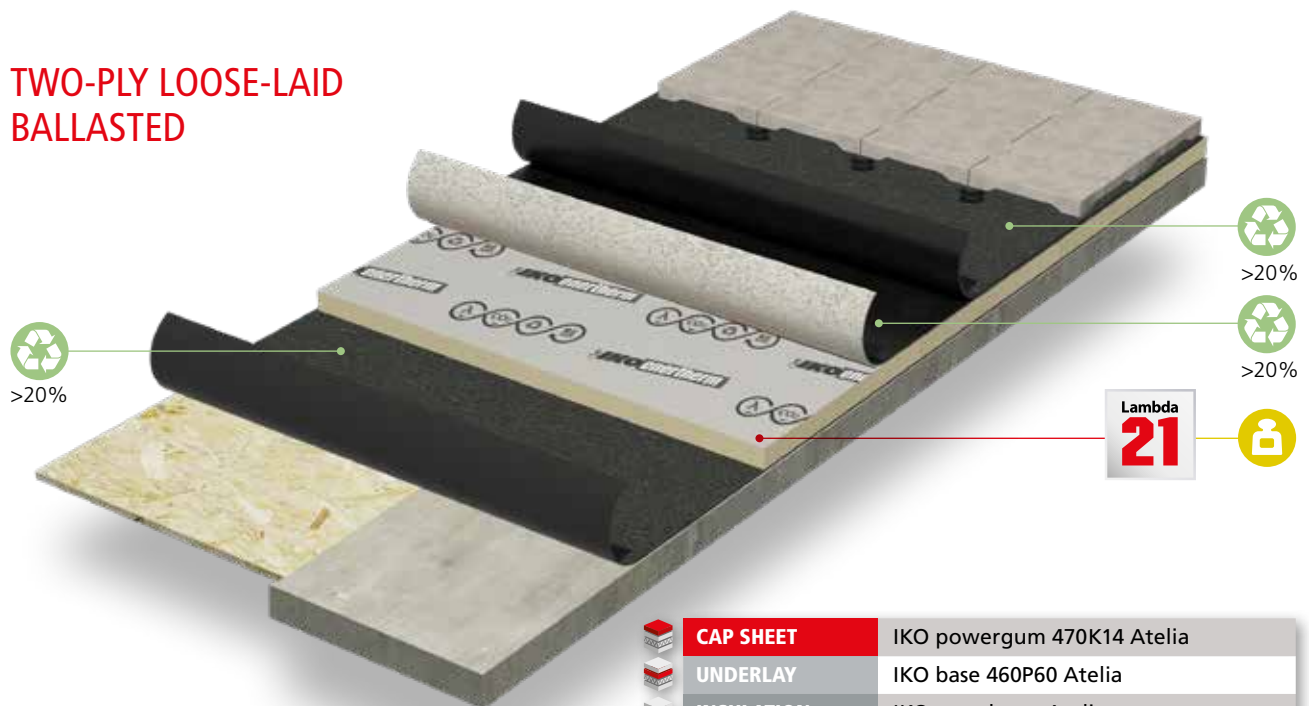
TWO-PLY MECHANICALLY FASTENED



TWO-PLY MECHANICALLY FASTENED

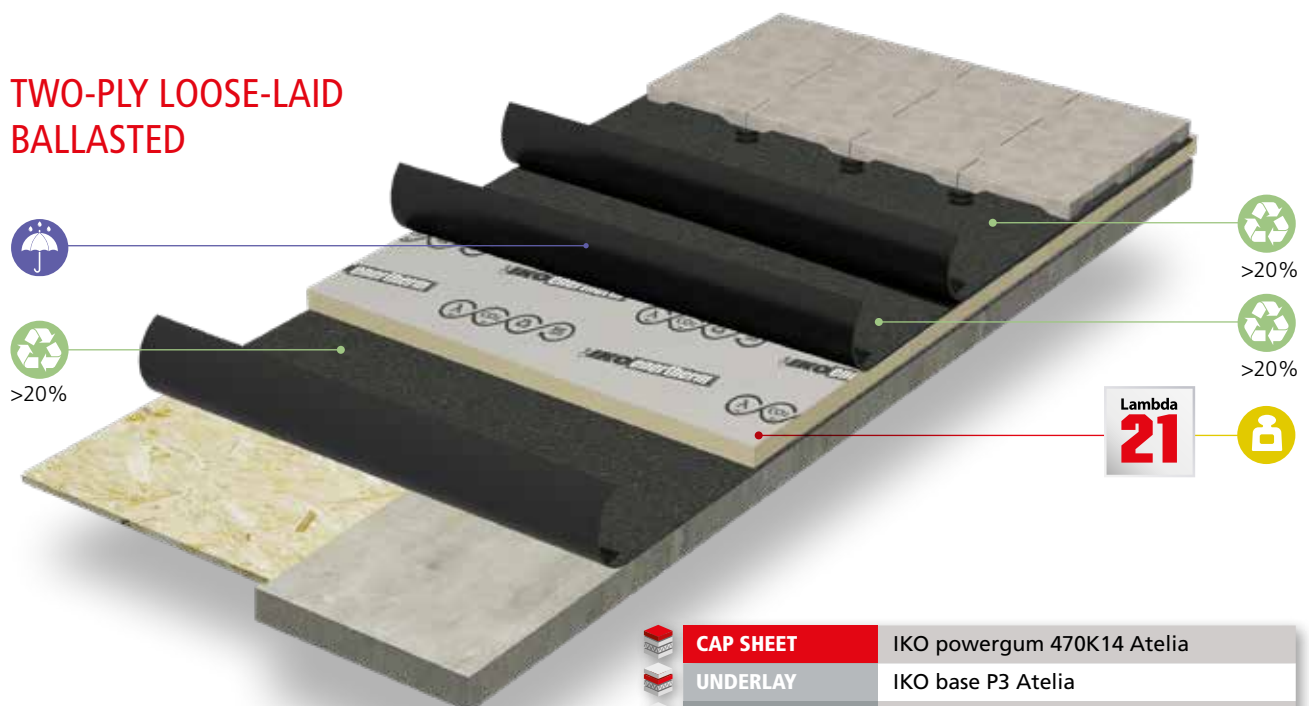


TWO-PLY LOOSE-LAID BALLASTED



	CAP SHEET	IKO powergum 470K14 Atelia
	UNDERLAY	IKO base 460P60 Atelia
	INSULATION	IKO enertherm Atelia
	VAPOUR BARRIER	IKO base P3 Atelia
	SUBSTRATE	concrete / wood

TWO-PLY LOOSE-LAID BALLASTED



	CAP SHEET	IKO powergum 470K14 Atelia
	UNDERLAY	IKO base P3 Atelia
	INSULATION	IKO enertherm Atelia
	VAPOUR BARRIER	IKO base P3 Atelia
	SUBSTRATE	concrete / wood





IKO is a leading manufacturer of roofing, insulation and liquid waterproofing solutions.
With its head office located in Toronto, Canada and over 30 factories and
4500 employees worldwide, IKO is a truly global player.



ROOFING | WATERPROOFING | INSULATION

IKO B.V. - Wielewaalweg 1 - 4791 PD Klundert - Nederland - nl.iko.com

IKO NV - d'Herbouvillekaai 80 - 2020 Antwerp - Belgium - be.iko.com