ON THE WAY TO A FUTURE... CIRCULAR

NO ROOF TO WASTE

DERBIGUM®

NO ROOF TO WASTE

SHOUT IT FROM THE ROOFTOPS

Environmental protection is no longer an option, but a reality for everyone. A sector that has been using natural raw materials for decades, which are also limited, must be fully aware of this. Derbigum has been aware of this for a long time - and without compromise. We are attentive to the changes in our world and actively seek timely responses. Our willingness to move forward drives us even more towards the creativity and quest for innovation that drive our company. Derbigum decided very early to embark on a new path of its own, in response to its concern for sustainability and respect for nature.

The best way to achieve this and **reduce our carbon footprint** consists of **extending the life of our products as much as possible** and recycling the bitumen into a new raw material.

We stand out in each of these two strategies. Derbigum is a pioneer in bitumen recycling. At first glance, bitumen and ecology seem difficult to reconcile. And yet, while it is true that bitumen is derived from oil, it is also the most environmentally friendly waterproofing solution for flat roofs, not least because of their impressive lifespan. Derbigum's waterproofing membranes have, in fact, a **proven minimum 40-year life span on roofs.** Afterwards, they may **easily receive a new layer of Derbigum.** And there they go for another 40 years, no worries. What's more, the membranes are **100% recyclable into high-quality raw material** for the manufacture of new waterproofing membranes. From this recycled material we have developed Derbigum NT.

Derbigum therefore demonstrates on a daily basis that sustainable and global growth is perfectly possible. Thanks to our know-how and experience in roofing recycling, we are today at the forefront of ecological commitment and innovation. Since we use raw materials that are subject to depletion, it is our duty to transform them into a product that is guaranteed to last a long time and can then be returned 100% to the production process.

That is why we remain optimistic despite the bleak climate outlook. It's quite simple: the more the consequences of climate change become apparent, the more innovation will be required to deal with them. At Derbigum, we therefore want, more than ever, to maintain our role as a pioneer at the forefront.

GRÉGOIRE MOREL
CEO Derbigum

Note: The collection of bitumen for recycling at Derbigum is relevant to some countries in Europe at this time.

THE DERBIGUM RECYCLING PROCESS

DERBIGUM IS ENVIRONMENTALLY FRIENDLY AND SUSTAINABLE

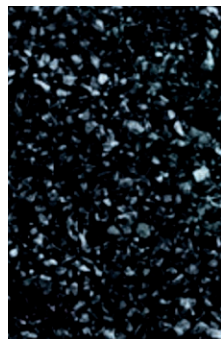
Derbigum demonstrates this, day after day, thanks to a unique and differentiating recycling program, which dates back to 1990. Derbigum thus assumes its environmental and social responsibility and stands as champion of the circular economy.

Imperbel is a family business, totally Belgian. Its social responsibility has governed its identity since its foundation in 1932. Waterproofing solutions with proven durability have always been one of the main principles of our commitment to the environment.

Derbigum is a pioneer in roofing recycling since 1990

Derbitumen is an important raw material for the production of selected DERBIGUM product mixes

6



Production of a new bitumen raw material (Derbitumen) by a patented process

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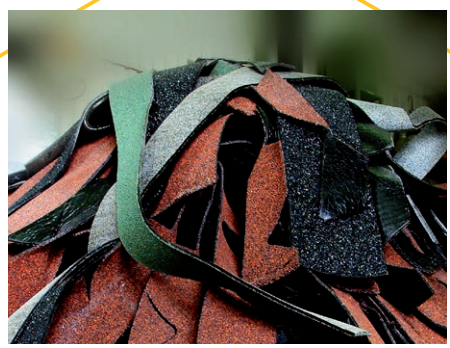
1



Collection of offcuts, production offcuts and old roofing membranes

2

Collection in big bags from your distributor

Cleaning process to remove dust, metal residues, etc.

3

Grinding to obtain smaller granules

4

NO ROOF TO WASTE

BACK TO THE FUTURE

Recycled material *Derbitumen®*

THEN, AFTER 40 YEARS OF LOYAL SERVICE

At the end of their life, after more than 40 years of loyal service, the **Derbigum waterproofing membranes are 100% recyclable**. However, this lifespan can be extended even further by applying an additional layer of Derbigum. And in the end, everything remains totally recyclable.

Since the 1990s, Imperbel has been involved in the recycling of bituminous roofing membranes that have reached the end of their service life. The developed process generates a completely new raw material, **Derbitumen**.

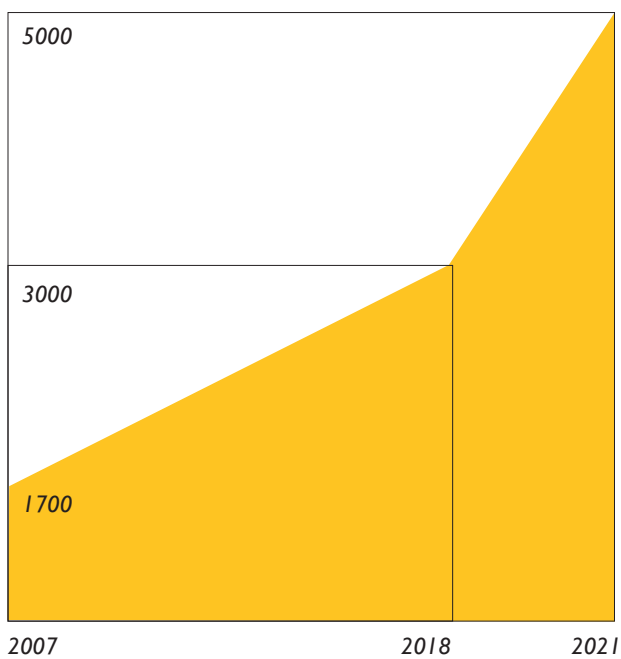
This recycling process has less impact on the environment than the production of bitumen from oil.

Imperbel began measuring its recycling activities in 2010.
The results speak for themselves:
25,600 tonnes of recycled bitumen to date
= 12,800 tons of CO_2 emissions avoided
= 36 million litres of oil saved

Derbigum's future goal is to increase **Derbitumen production to 5,000 tons by 2021.**

This is equivalent to a **annual savings of 2,500 tonnes of CO_2 emissions and over 7 million litres of oil.**

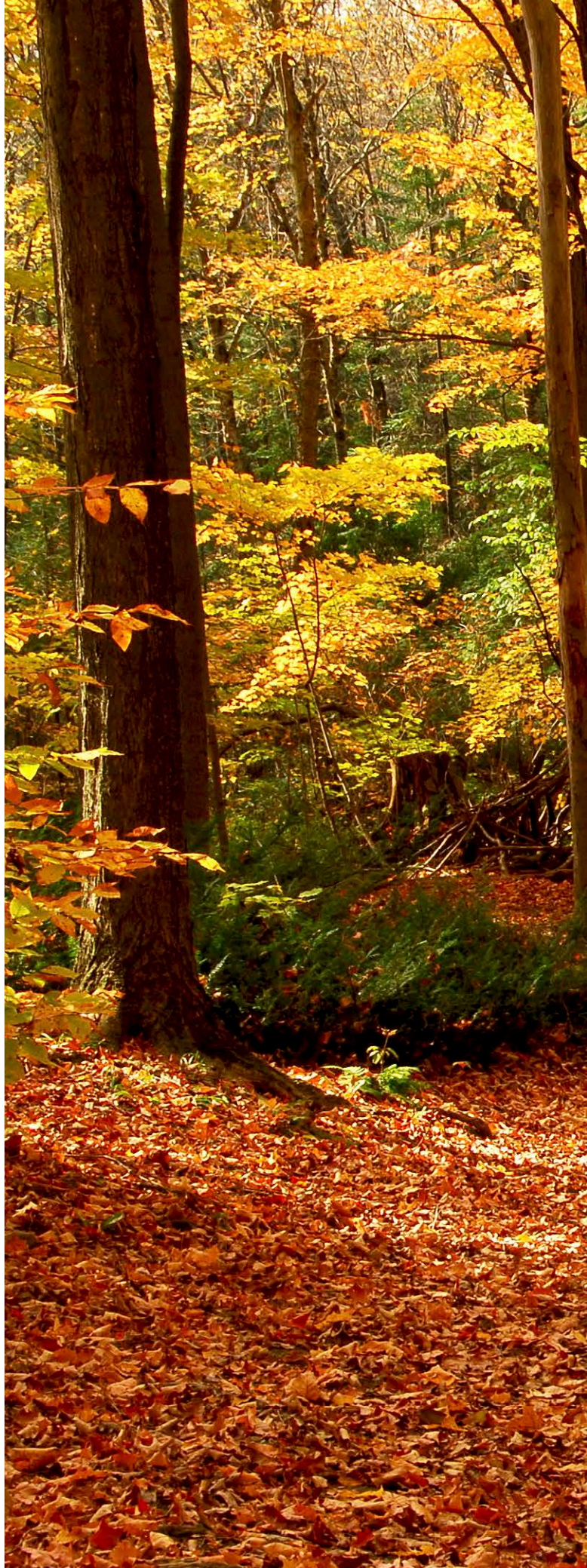
Tons of recycled bitumen



Derbigum makes a unique contribution to the circular economy thanks to Derbitumen, the new raw material produced by recycling.

NO ROOF TO WASTE

DERBIGUM NT = SUSTAINABLE MEMBRANE



IMPERBEL ACKNOWLEDGES THAT YOU CARE ABOUT THE ENVIRONMENT, AND BY USING THE DERBIGUM NT RANGE YOU SUPPORT THE NO ROOF TO WASTE PHILOSOPHY AND YOU CONTRIBUTE TO THE CIRCULAR ECONOMY.

Recycling allows the introduction of DERBITUMEN into selected DERBIGUM product mixes

- Developed with Imperbel's know-how
- Derbigum NT: 25% of recycled material
- Derbicoat NT: 30% of recycled material
- Reinforcements partly composed by recycled raw materials (glass fibers and non-woven polyester)
- Produced with 100% green electricity (2750 tons CO_2 emission avoided in 2018).
- 100% recyclable at the end of its life. Can be integrated into the No Roof To Waste program.

Derbigum NT is supporting a sustainable future. By the production of Derbitumen, and the use of green electricity, Imperbel will be saving 5250 tons of CO_2 representing 262.500 trees (neutralizing 20 kg CO_2/year) in 2021.


In 2021, Derbigum will act
against global warming
like 262.500 trees capturing
20 kg CO_2/year.

NO ROOF TO WASTE

DERBIGUM THE MOST SUSTAINABLE WATERPROOFING

The Dutch Institute for Building Biology and Ecology, NIBE, examined as an independent research organization the life cycle analysis of the Derbigum membrane and came with a remarkable result:
"Derbigum NT is one of the best choices from an environmental perspective and therefore deserves the DUBOkeur®.
Derbigum NT scores well first of all because the materials have a long lifespan of 40 years, but especially because of the high percentage of recycled content. Something they achieve through their own high quality recycling system."

Interesting is that NIBE aggregates all the indicators, valorizing the impact of a membrane on the environment, into a number; the shadow cost for the environment expressed in euros per m² applied. Derbigum NT is top of class.

ENVIRONMENTAL ASSESSMENT

Product: **Derbigum NT® (3 mm & 4 mm)**

Application: Roofing, flat roof, mechanically fixed.

Functional unit: 1 m² of roofing, incl. attachment materials, for a flat or slightly sloping roof with a maximum inclination of 20°, that meets the requirements of the Building Decree, on the basis of a roof of 1000 m² (40x25 m) which is representative for roofsurfaces of more than 50 m². The considered period of reference is 75 year.

Compared with (amongst others):
Bitumen
EPDM roofing membranes
Plant membrane
POCB roofing membranes
PVC roofing membranes

Result: The product Derbigum NT® (3 mm & 4 mm) has been evaluated as one of the most environmentally friendly options and therefore is a good sustainable building choice.

Statement by NIBE Research bv
This certificate is based on the NIBE regulations (reference 722.03.07.049) for the issue of environmental quality certifications, published by NIBE Research bv. This product meets the criteria for DUBOKeur® certification.

DUBOKEUR®

On behalf of NIBE Research bv

ir. Jörg Blass
(directie NIBE)

ing. Olga van der Velde
(projectleider NIBE)

Date of issue: **1-2-2019**
Valid until: **1-2-2021**

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