RAINWATER SYSTEMS



# **Rockflow attenuation** and infiltration systems

Made of fully recyclable stone wool



By installing a water retention and infiltration system, you are contributing to climate change adaptation and supporting the local ecosystem. With a Rockflow system you are also choosing an environmentally friendly solution.

## Basalt rock is a natural material

ROCKWOOL's stone wool, including Rockflow, is primarily made of basalt. This is a natural resource renewed by volcanic activity. What's more, every year the earth produces 38,000 times more volcanic rock than we use in the production of stone wool. ROCKWOOL's annual consumption of volcanic rock is approximately 1% of the annual production of the Kilauea volcano in Hawaii. However, the basalt that Rockflow uses does not come from there! We source basalt locally, including from the Eiffel region of Germany. In Roermond in the southeast Netherlands, we process it to make stone wool.

## Rockflow contains almost 50% recycled material

In addition to basalt, recycled stone wool products are also a major raw material for ROCKWOOL. Stone wool can be infinitely recycled with no loss in quality. We are happy to make use of this property: Worldwide we have 19 recycling plants where we collect used stone wool products from the market and use them to make new stone wool. We call this programme Rockcycle<sup>®</sup>.



Using recycled stone wool ensures we use fewer virgin materials. More importantly, it prevents used stone wool going to landfill. ROCKWOOL can also use other waste materials from other sectors as raw material to process into stone wool.

By choosing Rockflow, you are opting for a more circular economy and reducing waste outputs, and therefore contributing to the United Nations Sustainable Development Goals (SDGs) and, in particular, SDG 12.



Basalt in its natural state.



### 60% less greenhouse gasses than a plastic alternative

The global warning potential (GWP) of a Rockflow system is only 1/3 of that of plastic-based systems. The GWP is generally expressed as  $CO_2$  equivalents. The production of plastic requires more energy and resources than the production of Rockflow, generating more  $CO_2$  emissions. This has been demonstrated in an independent lifecycle analysis of Rockflow and a comparable plastic retention system carried out by Danish consultants Ramboll. In the Netherlands we also use the Environmental



Comparison of Rockflow and a plastic-based infiltration system in Deurne, Netherlands. The greater environmental footprint is derived (by the plastic product) during its production and end of life phase.

Cost Indicator (in Dutch: Milieu Kosten Indicator) that records how much it would cost in euros to compensate for the negative environmental effects of a product. For Rockflow, this MKI value is 11.8EUR/ m<sup>2</sup> of stone wool. This is lower than the MKI value of a plastic system in part because plastic systems are not expected to have the same longevity.



Collecting stone wool for recycling during a renovation

## Safe for the soil

Rockflow is safe for underground applications and does not cause any soil contamination. The materials in a Rockflow system meet the requirements of Dutch Soil Quality legislation (BBK) set by Bodem+, part of Rijkswaterstaat, the executive of policies and regulations of the Ministry of Infrastructure and the Environment.

## **Transparent and honest business practices**

Rockflow is a subsidiary of the international ROCKWOOL Group. We are transparent about our ecological footprint and strive to acheive clear climate goals.

An extract from our sustainability report, 2022 is as follows:

- ROCKWOOL is in 16th place of the top most sustainable businesses in the world and in 1st place worldwide in the Building Products category (Corporate Knights Global 100).
- In 2022 we improved the average worldwide carbon intensity of our products, with a 17% reduction compared to 2015.

#### More information about the hydraulic behaviour of Rockflow.

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ROCKWOOL Group is the world leader in stone wool products, from building insulation to acoustic ceilings, external cladding systems to horticultural solutions, engineered fibres for industrial use to insulation for the process industry and marine & offshore. We are committed to enriching the lives of everyone who experiences our products and services, and to helping customers and communities tackle many of today's biggest sustainability and development challenges including energy consumption, noise pollution, fire resilience, water scarcity, urban flooding and more.

