



8 FACTS ABOUT | **The circularity** of stone wool ceiling tiles

Buildings are a huge drain on natural resources. They use 40% of the world's resources and 25% of the world's water. They also create 1/3 of the world's waste and 40% of all carbon emissions.¹⁾ The construction industry cannot keep consuming at this rate.

That's why it's vital to start protecting the environment and our planet, by choosing sustainable and circular materials that can save our energy and resources, while cutting waste.

Find out how sustainable materials like stone wool can dramatically improve the circularity of your building:



01

Yes, stone wool can be infinitely recyclable

Some materials are much more recyclable than others. In fact, some can be recycled forever. Stone wool can be recycled an infinite number of times, without ever affecting its quality.

That's why Rockfon leads the industry with closed-loop recycling on our ceiling tiles. We continually turn old products and fresh offcuts into new stone wool products. We can make circularity even easier for many European customers, by collecting their used products for recycling in our factories. This both reduces the consumption of materials and saves waste from going to landfill.

02

Stone wool ceiling tiles do not contain any greenhouse or ozone depleting gases

Another vital environmental consideration is whether or not your materials contain greenhouse gases or ozone-depleting gases. Specifically, CFCs, HCFCs, HFCs and CO₂, which all contribute to global warming. CFCs and HCFCs are particularly dangerous, because they deplete the ozone layer and add to summer smogs.

Stone wool is a great choice because It has an open structure that contains no greenhouse gases or ozone-depleting gases, as certified by Environmental Product Declarations (EPD).²⁾

1. COM(2011) 571, 'Roadmap to a Resource Efficient Europe' available via <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52011DC0571>, accessed at 23 Jan.2020
2. ROCKWOOL EPD, e.g. https://www.epd-norge.no/getfile.php/1310353-1556196117/EPDer/Utenlandsk_percent20registrerte_percent20EPD/NEPD-1762-738_ROCKWOOL-stone-wool-thermal-insulation.pdf

03 Stone wool does not contain toxic flame retardants

When considering the fire resistance of your materials, it can be tempting to apply a chemical flame retardant. But these can be extremely toxic. Certain brominated and chlorinated flame retardants are considered Persistent Bioaccumulate Toxins, while Boric Acid flame retardants are classed as Substances of Very High Concern.

Stone wool is naturally fire resistant, which not only limits the spread of fire and boosts the fire resilience of your buildings, it doesn't need toxic chemicals applied.

04 Stone wool ceiling tiles are a circular product

Stone wool ceiling tiles can be infinitely recycled into new products, which supports a truly circular business model. So how does it work?

When a building is demolished or refurbished, any stone wool can be removed and recycled. In many cases, ROCKWOOL will collect your used products for you. In fact, we collected 160,000 metric tons of stone wool in 2019 alone.³ Currently we offer this service in 10 countries, which we aim to increase to 15 by 2022 and 30 by 2030. In 2020, we reclaimed 163,000 tonnes of stone wool waste in the whole ROCKWOOL Group.



3. ROCKWOOL sustainability report, 2019, available via: <https://www.rockwoolgroup.com/about-us/sustainability/sustainability-report/>, accessed at 22 Jul.2020



05 Stone wool ceiling tiles have long-lasting performance

A key element of circularity is durability. A durable material should last a long time, without requiring maintenance or suffering any loss in performance. Materials that need to be replaced often not only create waste and drain resources, but cost more in the long run.

Stone wool ceiling products offer good durability. They retain their full acoustic performance, fire resilience and moisture resistance from the day they are installed and for a long time.

07 Stone wool ceiling tiles can be manufactured from secondary materials

Secondary materials are materials that are recycled and used again. Stone wool products are perfect for this, as they can be made using the waste from other industries. Simply put, Rockfon upcycles on an industrial scale.

Materials, that would have been sent to landfill, such as slag from the metal industry, can be used to make stone wool products. That's why stone wool is a natural fit for the circular economy, helping you create the sustainable buildings of the future.

06 Stone wool ceiling tiles can have a high percentage of recycled content

Many products can claim to be from recycled materials, but often only contain a small percentage of recycled materials. It's worth checking the genuine composition of your material, to see how recycled it really is.

The recycled content of the mineral wool core in Rockfon products is >40%. Including facings (paint and glass fleeces) the recycled content of the full product is between 29% and 64% according to ISO 14021. Better still, this recycled content primarily comes from post-industrial/pre-consumer resulting from upcycling waste from other industries, that would otherwise be sent to landfill. Wool waste from end of life recycling, installation cut-offs and manufacturing (e.g. as part of briquettes) is also included.

08 Stone wool ceiling tiles are the sustainable solution for your building

Sustainability is much more than a pledge. We have earned credits from all the major sustainable building rating schemes. Our acoustic solutions are all certifiably:

- Durable, recyclable and non-toxic
- Superior in acoustic performance
- Have Environmental Product Declarations (EPDs)⁴
- Have been certified as Cradle to Cradle Bronze and Silver (depending on the product type. The certification covers more than 90% of our products.

For more information on the contribution of Rockfon products to sustainability, please check our product sustainability declarations here and our pages on building rating schemes.

👉 **Inspired to learn more about circularity and stone wool? Explore the product benefits section on our webpage.**

It's never been more important to design buildings for the circular economy. Thankfully, stone wool is an ideal solution to many of these environmental challenges, helping you create sustainable buildings that are more efficient, healthy and durable.

4. Institut Bauen und Umwelt e.V (IBU). All of ROCKWOOL's EPDs follow European and International Standards (EN 15804, ISO 14025 for EPD, ISO 14040 (part 1 & 2) and ISO 14044, ISO 21930).

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