



# **DGNB**

See how Rockfon acoustic ceiling tiles, baffles, islands and wall applications satisfy DGNB requirements

#### We are Rockfon

We are the world's leading acoustic company. Every day we're inspired to innovate with sound solutions that help people, think, rest and enjoy life more. Our acoustic ceiling tiles and wall panels are specially designed to provide acoustic ceiling solutions that are beautiful while creating healthy, comfortable spaces.





#### Sustainability in Rockfon

Sustainability sits at the heart of our research and development. It is not just a buzz world but it is embedded in all our processes and way of thinking throughout the lifecycle of the product. It's why we use natural stone, constantly reduce our carbon footprint and recycle, doing our part for the circular economy.

We know how important is sustainability to you and we want to share our knowledge and show you how Rockfon products and their properties can help you earn more credits toward the DGNB building rating scheme.

DGNB is the abbreviation (in German) for the German Sustainable Building Council. The DGNB certification has expanded beyond Germany and offers its sustainable building certification worldwide. The DGNB certification system looks at all the phases of a building's life cycle, tailored for each building type's planning, construction, and operation processes. "The purpose of the DGNB and the DGNB System is not to provide certification for certification's sake, solely as a marketing tool or to demonstrate leadership; instead, it uses certification as a means by which a consistent overall quality standard can be ensured". The DGNB system has amended its latest version to accommodate the planning and construction phases, taking into account people, the circular economy, design quality, sustainable development goals (SDGs), climate protection and innovation.

The following table provides an overview of all the possible credits you can get by using Rockfon ceiling solutions.

## **Environmental quality**

Criteria	Rockfon's contribution	Share of total score
<b>ENV 1.1</b> Building life cycle assessment	DGNB Intent: ENV 1.1 looks at the planning stage of the building, life cycle assessment results and energy consumption analysis and identify optimal solutions to the environmental issues related to all the building's life cycle stages.¹  Rockfon: All of our products can be found in our third-party verified Environmental Product Declaration (Product-specific Type III EPDs) available on our website or in third-party databases like IBU, UL, EPD Norge. Using the "scaling formula" found inside the EPD, you can easily calculate product specific results. Our technical support team is trained and can provide you with assistance if you need it.	9.5%
ENV 1.2  Local Environmental Impact	DGNB Intent: ENV 1.2 promotes the use of environmentally friendly materials that contribute to a high-standard indoor air quality and are subjected to strict regulatory specifications to achieve the required Quality Level. <sup>2</sup> Rockfon: Rockfon products are screened against substances listed in Annex XIV and Annex XVII of REACH regulation No. 1907/2006 and are free of any chemicals of concern (per REACH and RAL-UZ 132) eliminating exposure risks. You can find more information in our Product Sustainability Declarations or on our website. More than 90% of our products have been Cradle to Cradle certified in Silver or Bronze level. For more information please access c2ccertifed.com.	4.7%
ENV 1.3 Sustainable resource extraction	DGNB Intent: ENV 1.3 supports manufactured products that responsibly extracted raw materials, promotes transparency throughout the value chain, and mitigates environmental and social impact. <sup>3</sup> Rockfon: We select our suppliers after ensuring that they fulfil ROCKWOOL Group's Code of Conduct and our high standards and commitment to the environment and people. We are continuously trying to improve our environmental performance and the materials that we put into our production by increasing the share of recycled (secondary) materials. You can reach out to us for more information on our suppliers and their sustainable extraction policies. You can also download our Product Sustainability Declarations for more information on our percentage of recycled content, which is usually more than 30%, and in some cases, even higher than 60%.	2.4%

<sup>&</sup>lt;sup>1</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/02\_ENV1.1\_Building-life-cycle-assessment.pdf">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/02\_ENV1.1\_Building-life-cycle-assessment.pdf</a>, accessed at Jan 2021.

<sup>&</sup>lt;sup>2</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/02\_ENV1.2\_Local-environmental-impact.pdf">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/02\_ENV1.2\_Local-environmental-impact.pdf</a>, accessed at Jan 2021

<sup>&</sup>lt;sup>3</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/02\_ENV1.3\_Sustainable-resource-extraction.pdf">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/02\_ENV1.3\_Sustainable-resource-extraction.pdf</a>, accessed at Jan 2021.

# **Economic Quality**

Criteria	Rockfon's contribution	Share of total score
ECO 1.1 Life cycle cost	DGNB Intent: ECO 1.1 looks to develop, analyse and optimise the life cycle costs of a building during the planning phase and achieve cost-efficiency over time for all the life cycle stages of a building. <sup>4</sup> Rockfon: We can support you and offer information on the component life cycle cost needed for this credit. Our products are long-lasting and do not need any maintenance or repair over their lifespan, therefore there are not any accruing costs. At the end of their life, they are manually dismantled making their disposal or recycling more cost-efficient.	12.9%
<b>ECO 2.1</b> Flexibility and adaptability	DGNB Intent: ECO 2.1 promotes highly flexible and adaptable building designs that can extend a buildings' service time, enable conversion to other uses and ultimately improve the building's cost-efficiency. <sup>5</sup> Rockfon: Our products are adaptable to internal changes in a physical space, and refurbishment, as they can be manually removed without affecting the structure.	9.6%

## **Process Quality**

Criteria	Rockfon's contribution	Share of total score
PRO 1.5  Documentation of sustainable management	DGNB Intent: PRO 1.5 supports a buildings efficient operation according to the plan, taking into consideration maintenance, inspection, operating and care instructions, upto-date plans, the facility management manual and BIM planning and model.   Rockfon: On our website and via our technical support services you can find all the relevant documentation you need. Installation and cleaning instructions are provided as well as information about the handling of waste during installation and End of Life. We also have available BIM objects to use as support to this requirement. Our products after installation can offer all the acoustics, aesthetic, and lighting benefits to the building occupants.	1.1%
PRO 2.1 Construction site / construction process	DGNB Intent: PRO 2.1 takes measures to mitigate the construction phase's environmental impact, tackling issues that include noise and dust reduction, soil and groundwater protection, and waste perversion. <sup>7</sup> Rockfon: Our products do not create significant amounts of waste during installation and we also offer a recycling service for any off-cuts created during the installation process, meaning that there is no need to send waste to landfill. During installation, the proper safety instructions need to be followed. Stone wool fibres are not classified as hazardous or irritants and stone wool is not related to any health issues. It's safe to manufacture, install and live with.	1.6%

<sup>&</sup>lt;sup>4</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/03">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/03</a> ECO1.1 Life-cycle-cost.pdf, accessed at Jan 2021.

<sup>5</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/03">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/03</a> ECO2.1 Flexibility-and-adaptability.pdf, accessed at Jan 2021.

<sup>&</sup>lt;sup>6</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/06\_PRO1.5\_Documentation-for-sustainable-management.pdf">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/06\_PRO1.5\_Documentation-for-sustainable-management.pdf</a>, accessed at Jan 2021.

accessed at Jan 2021.

Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/06\_PRO2.1\_Construction-site-construction-process.pdf">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/06\_PRO2.1\_Construction-site-construction-process.pdf</a>, accessed at Jan 2021.

## Sociocultural and Functional Quality

Criteria	Rockfon's contribution	Share of total score
SOC 1.1 Thermal comfort	DGNB Intent: SOC 1.1 looks at thermal comfort for the heating and cooling period to the building users and increase well-being.   Rockfon: Our products are made from stone wool which is highly sound-absorbent and a thermal-insulating material. The thermal conductivity of Rockfon ceiling tiles is between 37-40 mW/mK. Our Rockfon Facett and Rockfon Cosmos product families have improved thermal insulating properties and are installed to offer good thermal comfort as well as excellent acoustics. Their thermal conductivity value is as low as 34 mW/mK.	4.5%
SOC 1.2 Indoor air quality	DGNB Intent: SOC 1.2 ensures that the building meets the indoor air quality requirements and contributes to the building users' well-being. <sup>9</sup> Rockfon: Our ceiling and wall solutions have the best in class air emission labels and they can help you earn more points toward this credit. Our products have the best in class indoor climate labels like the French VOC A+, Finish M1, Blue Angel, Singapore Green Building Product Certificate, and the Danish Indoor Climate Label. The emission levels are established according to the EN 16516-1:2018 testing method. You can find more information on the certificates and labels that each product has by downloading our Product Sustainability Declarations.	5.4%
SOC 1.3 Acoustic comfort	PGNB Intent: SOC 1.3 ensures good acoustic conditions, productivity and user comfort. 10  Rockfon: Our products are highly sound absorption and significantly contribute to reducing reverberation time and increasing speech intelligibility. Adding a highly soundabsorbing ceiling can reduce noise levels up to 6 dB(A). Most of our products have a sound absorption class A and perform significantly better than the industry average. By choosing our products, you can have an optimal acoustic environment that optimises speech intelligibility and indoor comfort.  Our Rockfon dB range combines excellent sound absorption and sound insulation, stopping noise going from one room to that other.	2.9%
SOC 1.4 Visual comfort	DGNB Intent: SOC 1.4 ensures visual comfort and the availability of daylight and artificial lighting to ensure the building users' productivity and well-being and support energy savings from artificial lighting and cooling."  Rockfon: We deliver a number of ceiling solutions with a light reflectance of 85% or above. Better distribution of natural light within interior spaces can help building owners lower electric lighting expenses and reduce cooling costs, saving both energy and other associated costs. By choosing ceilings with the right light reflectance, Rockfon promotes occupants' productivity, comfort, and well-being.	3.4%
<b>SOC 1.6</b> Quality of indoor and outdoor spaces	DGNB Intent: SOC 1.6 promotes high quality indoor and outdoor spaces that support, among other things, social communication, additional provisions for users, child/family/ senior-friendly design and outdoor areas and outdoor facility design concept. 12  Rockfon: Our products have high sound absorption, significantly reducing reverberation time and improving speech intelligibility. By choosing our products, you get an optimal acoustic environment that optimises speech intelligibility, and communication, creating a comfortable space.	5.4%

<sup>8</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/04\_SOC1.1 Thermal-comfort.pdf, accessed at Jan 2021.

\*Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/04\_SOC1.2 Indoor-air-quality.pdf, accessed at Jan 2021.

\*Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/04\_SOC1.3 Acoustic-comfort.pdf, accessed at Jan 2021.

\*Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/04\_SOC1.4 Visual-comfort.pdf, accessed at Jan 2021.

\*Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/04\_SOC1.6 Quality-of-indoor-and-outdoor-spaces.pdf, accessed at Jan 2021.

## **Technical Quality**

Criteria	Rockfon's contribution	Share of total score
TEC 1.1 Fire safety	DGNB Intent: TEC 1.1 supports the efforts for safety against fire and preventing the negative impacts they inflict on humans, nature, buildings and the environment.   Rockfon: Our products are made from stone wool, a fire-resistant material able to withstand very high temperatures without the use of flame retardants. Stone wool ceiling tiles limit the spread of fire. Stone wool will not fuel or spread fire, nor release toxic smoke.	2.9%
TEC 1.2 Sound insulation	DGNB Intent: TEC 1,2 ensure sound insulation up to the required quality level, preventing disruptive noises and promoting the comfort and well-being of the building users.   Rockfon: Our products have high sound absorption, significantly reduce reverberation time and increase speech intelligibility. Adding a highly sound-absorbing ceiling can reduce noise levels up to 6 dB(A). The majority of our products have a sound absorption class A (a <sub>w</sub> value between 0.9 and 1.0). By choosing Rockfon products you get an optimal acoustic environment that optimises speech intelligibility and the indoor climate.	2.3%
TEC 1.5 Ease of cleaning building components	DGNB Intent: TEC 1.5 applies measures that facilitate an easy, low-cost and environmentally friendly cleaning of the building components during the use stage of the building.   Rockfon: Our ceilings are durable and can be easily cleaned without impacting the visual design of the space. As our acoustic solutions are made from stone wool, they have no nutritional value and do not provide sustenance to harmful micro-organisms. If needed, all of our stone wool products can be vacuum cleaned with a soft brush attachment.	1.8%
TEC 1.6 Ease of recovery and recycling	DGNB Intent: TEC 1.6 preserves natural resources and support the reuse and recycling of materials used and building components.   Rockfon: Our products can be reused or recycled back at our factories, following a closed-loop recycling system. In many markets, we support our customers, and we offer a complete recycling solution by establishing partnerships with waste handling companies and forming logistic networks to take back waste. Please reach out to our local team for more information about the recycling solution available in your market.	3.5%

DISCLAIMER: The points gained in each feature are not solely dependent upon the performance of Rockfon products. Rockfon products merely help achieve the credits, but they are not a stand-alone element. Rockfon does not guarantee or can be held liable for the non-fulfilment of the credits, which can include a broader assessment of construction products and building elements.

<sup>&</sup>lt;sup>12</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/05\_TEC1.1\_Fire-safety.pdf, accessed at Jan 2021.

<sup>14</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/05\_TEC1.2\_Sound-insulation.pdf, accessed at Jan 2021.

<sup>15</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/05\_TEC1.5\_Ease-of-cleaning-building-components.pdf,

<sup>&</sup>lt;sup>16</sup>Deutsche Gesellschaft für Nachhaltiges Bauen (German Sustainable Building Council) – DGNB System New construction, buildings criteria set, Version 2020 International, available at <a href="https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/05\_TEC1.6\_Ease-of-recovery-and-recycling.pdf">https://static.dgnb.de/fileadmin/dgnb-system/en/buildings/new-construction/criteria/05\_TEC1.6\_Ease-of-recovery-and-recycling.pdf</a>, accessed at Jan 2021.

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