



**Rockzero: the
real-world view**



Discover the real-world view of Rockzero

The Rockzero insulated wall system is a highly flexible and innovative way to build nearly zero-energy homes. That flexibility is demonstrated by the numerous benefits it brings to all types of build: such as predictable energy calculations, design flexibility, fire safety, indoor comfort, acoustic performance and much more.

It's also reflected in the views of professionals, homeowners and housing associations around the world: which is why we've gathered a few short examples to demonstrate what makes Rockzero special.



The building contractor's view

Mernild Byg

Danish building contractor Mernild Byg handles projects including new builds and residential renovations, and relies on the skills of Phillip Holbek, a multi-disciplinary craftsman.

Phillip is always looking for techniques that make it easier to build low energy buildings to high-quality standards. Installation time is also essential to meet project deadlines and maintain good business relationships. New systems and methods must therefore be easy to learn and fast to work with – particularly insulation which can be time consuming to install using traditional building methods.

“The Rockzero wall system has few components and is very intuitive to work with so you pick it up quickly,” says Philip. “With Rockzero, the electrician and plumber can easily penetrate the stone wool spacer and fix cables without special tools for drilling. This saves a lot of time in the construction process.”

New building standards also set high demands for energy performance, airtightness and safety which requires a series of on-site construction processes. With Rockzero many of these steps are made redundant, as Philip explains: “When building the Rockzero wall, you know that all requirements are met. The airtightness is built-in and the wall is done in one go which is quite time-efficient.”

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The energy specialist's view

Danish Energy Management

Danish Energy Management (DEM) are specialists at minimising energy needs with passive measures to reach the lowest energy levels in buildings. This puts a high demand on technical installation design, as DEM Technical Advisors, Brian Hurup-Felby and Morten Bindslev know all too well.

Brian, a specialist in Energy and Indoor Climate, says: “The energy performance of the wall is typically specified by the architects. When new elements are added during the design process it is often difficult to maintain the specified energy performance without increasing the insulation thickness. The advantage of Rockzero is that the U-value is the same no matter the building layout. Even in corners and around windows, it's easy to calculate energy performance and maintain the thin construction.”

The fact that energy calculations remain constant is also important to Brian's colleague, Morten Bindslev, an HVAC specialist, who says: “Even small changes in the building design require recalculations of the energy performance and this can be very time consuming with traditional walls. A thermal bridge free system like Rockzero saves us a lot of time on endless recalculations. This gives a high degree of design freedom and predictability of total energy performance.”

Brian Hurup-Felby concludes: “The energy calculation is complex work and it is not always possible to be completely sure that the building will perform as calculated. With Rockzero we can vouch for the calculated performance”.

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The architect's view

Vandkunsten Architects

Established in 1970 after four young architects won a House of the Future competition, Vandkunsten Architects works across all architectural disciplines: from housing and master planning to the renovation and transformation of buildings, cities and developments. The practice has a long-standing tradition of taking on projects for institutions with a social or cultural purpose.

Architect Kim Dalgaard also strives to develop buildings that meet social and sustainable targets, while at the same time meeting low energy standards. In that respect, Rockzero is the ideal material, as Kim explains: "The fact that the Rockzero wall system is demountable with dry connections and made with recyclable materials helps us to support a circular economy in our projects."

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How Tolhuizen tenants rate their new homes

Comfort

Living room **84%** satisfied
Bedroom **91%** satisfied

Air quality

Living room **99%** satisfied
Bedroom **91%** satisfied

Acoustics

84% do not hear noise from outside
92% have no sound disturbance from neighbours

Source: Monitoring study by Elkien 2018

The case study

Natural comfort, acoustic and energy performance for Elkien

Elkien housing association in the Netherlands currently provides around 20,000 rental houses in 8 municipalities of Friesland. The association also has an innovation department called Kien City lab which develops more affordable and future proof housing concepts, first on a small scale, and then across the Elkien portfolio. The goal is to make this whole portfolio energy-neutral by 2030.

One current project will create 40 new houses (14 in the first phase) in Tolhuizen. In collaboration with its contractor Zaandervijk and architect, TWA, Elkien chose the Rockzero building system in order to develop a new sustainable living concept.

The use of Rockzero will bring nearly zero-energy performance to Tolhuizen's new homes through the use of natural stone wool insulation. This will not only lower energy bills, but also absorb sound, protect against fire and 'breathe' to improve indoor air quality – giving tenants a more comfortable, safe and peaceful life.

During construction, Elkien will monitor energy consumption and the tenant experience in order to fine-tune future phases of the project. Already, the results are impressive, with high tenant satisfaction levels. As one tenant commented: "It's very positive that this house is sound proof, I don't experience any sound from outside."

For Elkien housing association, these Rockzero 'homes of the future' will be a long-lasting and sustainable addition to its portfolio, and will play a major role in helping to achieve its 2030 targets.

Discover Rockzero

At ROCKWOOL we are pioneering new ways to build nearly zero-energy homes with solutions such as the Rockzero wall system. It's shaping the future of economical, long-lasting sustainable homes.

Discover more about the benefits of Rockzero today.

Visit rockwoolgroup.com/rockzero

At the ROCKWOOL Group, we're committed to enriching the lives of everyone who experiences our solutions. Our expertise is perfectly suited to tackle many of today's biggest sustainability and development challenges, from energy consumption and noise pollution, to fire-resilience, water scarcity and flooding. Our range of products reflect the diverse needs of the world, while supporting our stakeholders in reducing their own carbon footprint.

Stone wool is a versatile material and forms the basis of all our businesses. With over 11,000 passionate colleagues in 39 countries, we're the world leader in stone wool solutions, from building insulation to acoustic ceilings; external cladding systems to horticultural solutions; engineered fibres for industrial use to insulation for the process industry – as well as marine and offshore.

