

# World of ROCKWOOL







More than 80 Years of Experience





12 Applying the Strengths of Stone





"There is something exciting about turning an abundant, ancient resource into a range of products that enrich modern life and address global challenges.

The beauty of our products is that they are all around us, all the time, no matter where we are. Yes, they are quiet, and often go unnoticed, but the silent, often-hidden existence of these products make our lives measurably more comfortable and enjoyable."

### Jens Birgersson CEO, ROCKWOOL Group



## **ROCKWOOL Purpose**

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We release the natural power of stone to enrich modern living

# Welcome to ROCKWOOL

At ROCKWOOL, we're committed to enriching the lives of everyone. Whether it's energy consumption or noise pollution to fire resilience, we're developing solutions to tackle the world's biggest sustainability and development problems. Our range of products reflects the diversity of the world's needs, supporting our stakeholders in reducing their own carbon footprint along the way. Our heritage is rooted in stone wool. We're the world leader in this field, with more than 11,000 passionate colleagues in the Group spread across 39 countries.

## ROCKWOOL has five brands, all working together to achieve our common purpose.

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Fire safe insulation for all types of buildings, industrial installations and marine & offshore industry.

#### Grodan 八

Global leader in the supply of innovative, sustainable stone wool substrate solutions for the professional horticultural sector based on Precision Growing principles.



Engineered stone wool for composite applications, noise and vibration control, and water management.



A complete ceiling system offer, combining stone wool ceiling panels with suspension grid systems, accessories and metal ceilings.



Decorative boards for (ventilated) facades, partly cladded facades and detailing around the roof offering design freedom, ease of use for modern, sustainable architectural approaches.

# More than 80 years of experience

In 2017, we mark 80 years since the ROCKWOOL Group started production of stone wool. We were the first to manufacture this unique material in Denmark, in 1937.

And since then throughout our history, our people have been innovating and discovering ways to transform an abundant, renewable natural resource into materials that bring comfort, safety and sustainability to millions of people worldwide.

1940



In 1951 Deutsche ROCKWOOL was established, and in 1954 production was started at the first factory outside Scandinavia, in Germany.

1960

1980s

During the 1980s a wide range of new products based on the highly refined stone wool technology were introduced.



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1980



#### 1996 In 1996 the ROCKWOOL Group became a public listed Company and shares were launched on the Copenhagen Stock ROCKWO Exchange ......... .........

NAME OF BRIDE

2000

2011

2010

Establishment of new plant in Dahej, India.



2000 Establishment of ROXUL Asia Factory in Melaka, Malaysia.



# 1935

1950

In 1935 the company bought drawings and property rights for production and sale of stone wool used for insulation purposes throughout Scandinavia. In 1936, the first production line becomes operational.



1970

**1970s** 

Due to the oil crisis in the 1970s with rapidly increasing energy prices all over the world many people had their eyes opened to the advantages of insulating their houses. The ROCKWOOL Group experienced an increase in turnover from DKK 360 million in 1970 to DKK 1,6 billion in 1979.

#### 1988 In 1988 the first factory in North America is acquired in Ontario Canada, setting the base for future expansion in

the region.

1990



1935

# 2010

Acquisition of CSR Bradford plants in China, Malaysia and Thailand. Establishment of the regional entity ROCKWOOL Asia.

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In 2015 Jens Birgersson joins as CEO and launches the business transformation programme which is successfully concluded one year later.

2020







After more than 80 years of successes, in 2017 a new growth plan is launched supporting future expansion and profitable growth.



# **ROCKWOOL Asia at a glance**

ROCKWOOL in Asia is one of the largest insulation producer in the region, manufacturing and supplying a full range of sustainable insulation systems and solutions for the entire building envelope and process industries. Our four stone wool factories located in India, Malaysia and Thailand as well as offices in India, Indonesia, Malaysia, Singapore, Thailand and Vietnam serve the needs of customers all across South Asia to

neighbouring countries of Australia, New Zealand, Japan and South Korea.

ROCKWOOL insulation solutions protect people from the cold, the heat, the risk of fire and noise. For the technical insulation in process industries, our solutions protect both the environment and your investment by reducing energy consumption and lowering CO<sub>2</sub> emissions.

#### How ROCKWOOL insulation is made

The production of ROCKWOOL insulation mimics the natural process that occurs inside volcanoes, melting, spinning and cooling a lava-like substance in a controlled environment. The raw material, basalt rock, is a renewable and plentiful





natural resource, making ROCKWOOL stone wool environmentally friendly and sustainable.

Based on the ROCKWOOL products sold in 2017, carbon savings during the product lifetime is 4,000 times the carbon emitted in its production.

The products are loaded onto trucks and distributed

# The strengths of stone

At ROCKWOOL, we've been applying the 7 strengths of stone to the world's biggest challenges for decades and ensuring that our product portfolio stays relevant to these most pressing issues. By seeing these challenges as opportunities to improve the lives of people around the world, our products have become central to conversations on issues like climate change, health and wellbeing, urbanisation and resource scarcity.



## **Fire-resilience**

Withstand temperatures above 1000°C.



## **Thermal properties**

Save energy by maintaining optimum indoor temperature and climate.



## Acoustic capabilities

Block, absorb or enhance sounds.



#### Robustness

Longer-lasting performance and robustness with easier installation.



## Aesthetics

Match performance with aesthetics.



## Water properties

Manage our most precious resource.



## Circularity

Reusable and recyclable materials.

Each of our products combined the 7 strengths of stone to address the big challenges facing our world. Here we look specifically at each of the strengths, and how they apply to the needs for safer and more resilient cities as well as the growing concerns for saving energy and the environment.

#### Urbanisation brings new challenges Building cities that are better to live in

With the urban population growing every day, we need to find ways to house everyone in our cities in a way that keeps them safe and helps them to thrive.

#### Driving energy efficient and sustainable businesses Industries' potential to save energy and money

Industries accounts for 26% of annual energy consumption and almost 40% of total energy-related CO<sub>2</sub> emissions. Insulation offers the potential to significantly reduced energy consumption and emissions of a processing plant while protecting the long term sustainability of its operations.







#### Welcome to homes with peace of mind built in

ROCKWOOL insulation is extremely resilient to fire. It works to contain fire and prevent its spread. At the same time, it does not contribute to the emission of significant quantities of toxic smoke. From apartment blocks to skyscrapers, from industrial facilities to busy schools, the natural qualities of stone are helping us build sustainable and safe cities, full of fire-resilient buildings.



#### The optimal temperature, whatever the weather outside

Temperature maintenance can dramatically reduce heating, cooling, and ventilation costs, and reduce a building's carbon footprint. ROCKWOOL insulation is a highly flexible material, which works in all spaces as a buffer against fluctuations in temperature. Furthermore, our products maintain their shape and density, so they perform at their peak throughout the lifetime of the building.



On average, it costs five times more to manage and maintain a building over its life than to build it. Buildings made of robust components require less technical supervision and refurbishment, which means savings in energy and materials used for maintenance and repair. ROCKWOOL insulation has a built-in robustness that is totally unique. It keeps its shape and toughness in all conditions; this means that compression, impacts and changes in temperature or humidity do not affect it. ROCKWOOL product's dimensional stability means its performance is unchanged, decade after decade, ensuring maintenance savings throughout a building's lifetime.

#### Stone controls where water goes

Stone wool can be engineered to repel water, defending valuable assets from the weather. It is also vapour-permeable, which means it allows moisture to pass through walls and out of the building. This protects buildings against rot, mould, and humidity damage. ROCKWOOL products not only create healthy indoor environments for everyone, it makes for a healthy, robust, working buildings where we spend 90% of our time in.





#### Creating new value from waste

Rock is one of the most abundant raw materials on the planet, but we still need to make better use of our planet's resources. We have developed our technology in a way that allows us to use waste from our production process back as part of our raw material. The building sector produces a third of all waste, much of which ends up in landfill today. So we have to reduce the waste that goes into landfills. We do this by recycling up to 31% of our waste into new products.

#### Our facades aren't just pretty faces

When people live and work in aesthetic spaces, they feel comfortable and motivated. With a combination of aesthetics and high product performance, ROCKWOOL can create these harmonious spaces that also protect and promote fire safety, acoustic and thermal performance, along with robustness and circularity. We have harnessed the natural beauty and adaptability of stone to make it easy for architects to design and customise in an almost unlimited range of colours, shapes, and forms.

#### A city that never sleeps never keeps you awake

From railways to roads and to airports, good infrastructure is crucial to urban life, which can be very noisy. The resulting noise pollution all have a serious and negative impact on our wellbeing, especially in densely populated areas. ROCKWOOL products are high-density, which makes them extremely resistant to airflow and excellent at noise reduction and sound absorption, meaning that even the nosiest infrastructure sounds quieter. Stone wool structure can be engineered to isolate and control noise, reducing its detrimental impact on people and buildings.

#### Welcome to buildings that fashion the future

# Landmarks across Asia

#### Buildings and industries with ROCKWOOL insulation

- 1 Reliance Industries, Jamnagar (India)
- 2 Dung Quat Refinery (Vietnam)
- 3 Woodside Pluto LNG (Australia)
- 4 Oomagari (Japan)
- The St. Regis Bangkok (Thailand)
  Marina Bay Sands (Singapore)
- 7 Petronas Twin Towers (Malaysia)
- 8 Kuala Namu International Airport (Indonesia)







Photo courtesy of Woodside Energy Ltd



Photo courtesy of MOLX Architects







Photo courtesy of The St. Regis Bangkok



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