Rockfon®

Part of the ROCKWOOL Group

BUILDING FOR A HEALTHY FUTURE

Successful Healthcare Buildings

Four-bed, diamond arrangement with en suite WC rooms
P22+ Repeatable Rooms Framework at Static Systems showroom

Rockfon is proud to have been awarded 'Recommended Supplier' status for suspended ceilings under the ProCure 22 NHS procurement framework, supporting value and clinical outcomes.

Noise can **increase** a patient's **heart rate**, **blood pressure** and **breathing** - all of which **inhibit** the healing process

Source: HTM 08-01, Department of Health

00 Building for a healthier future

Healthcare environments fit for the future

Today's healthcare environment has to accommodate a range of people, including patients, residents, the young, the elderly, visitors, staff and volunteers, and meet the unique requirements of each individual space, such as wards, consultation rooms, theatres, corridors and laboratories. Communication is key and in a healing environment, this means that noise must be managed to facilitate clear and, at times, private communications.

A QUIETER ENVIRONMENT FOR BETTER CLINICAL OUTCOMES

Studies show that there is an escalation of noise in hospitals and operating rooms. Excessively noisy conditions, among other factors, can significantly impact a patient's health, sleep and recovery, as well as the concentration levels of staff.

Whether a hospital, doctors' surgery or care facility, not exceeding acceptable noise levels in the healthcare environment is very important. Better acoustics are proven to promote essential sleep, improve patient's privacy and dignity, and ultimately help recovery and healing. To improve the acoustic conditions, we must design healthcare environments using products that help absorb and control the noise.

HYGIENIC AND SAFE

Surfaces in healthcare facilities must be hygienic, durable and safe. They need to be constructed of durable materials that offer high hygienic properties, are able to withstand the thorough cleaning and disinfection regimes, and meet the strict fire performance requirements for the safety of building users, who are often unfamiliar with their surroundings or have mobility problems.

LONG TERM DESIGN

Whether a new build or refurbishment project, hospitals, care homes and practices must be built for the long term and designs need to consider future needs. Ceilings need to be able to withstand the treatment commonly found in healthcare environments, including the frequent access for HVAC and maintenance, without getting damaged. Building materials need to be easy to maintain, flexible, adaptable and robust.

BUILDING FOR SUCCESS

Healthcare buildings play a central and vital role in our communities. They must be optimally designed to provide a comfortable, safe, nurturing and healing environment which has a positive impact on patients, staff and visitors. Only by truly understanding the demands of a building, how it will be used and the impact on its occupants, can we promote good clinical outcomes, well-being and improved staff productivity.

By harmonising the environment with sound absorbing, durable and hygienic materials, we protect patients and staff by creating a healthcare environment that is built for healing.

> "Unnecessary noise is the most cruel abuse of care which can be inflicted on either the sick or the well.
>
> *Florence Nightingale, 1859*

Our Top 10 for a successful healthcare environment

01 Acoustic comfort

Good acoustics promote wellbeing and healing

Studies prove that the escalating noisy atmospheres within hospitals frequently exceed those considered a hazard to health. Noise causes stress and wider ranging physiological and physical effects, which is detrimental to healing.

Communication problems | Physical effects | Physiological effects

The acoustic comfort of any healthcare environment is important and must be considered at the early stages of design.

Better acoustics promote essential quality sleep and rest patterns, which are proven to stimulate the hormones responsible for healing. Reduction in noise levels has a direct effect on the reduction of stress levels for staff as well as a positive effect on the success rate of operation outcomes, and patient studies show that quieter environments can reduce hospitalisation periods.

Today's healthcare environments need and expect better acoustic performance in order to improve clinical outcomes.

The biggest acoustic challenges for healthcare buildings are sound reverberation within a space and sound transmission between separate spaces.

DEALING WITH SOUND REFLECTION AND REVERBERATION (ECHO) WITHIN A ROOM

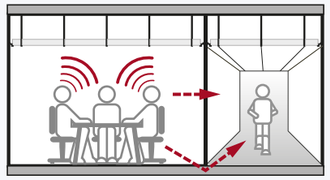
When sound waves hit hard surfaces found in a room, like walls, floors and windows, the audible energy wave we call noise reflects back in the room, which causes the overall noise level in the room to rise.

Background noise from medical equipment, trolleys, foot traffic, adjacent rooms and corridors can also create disturbances which interfere with speech intelligibility, concentration levels and performance. The main factors affecting reverberation are the geometry of the room and the amount and distribution of sound absorbent materials.

SOUND TRANSMISSION BETWEEN ROOMS AND SPACES

Sound transmission occurs between rooms or from floor to floor and external to internal noise. Private conversations in healthcare are vital, so visual separation of spaces needs to be matched by acoustic separation to ensure privacy.

Healthcare design must consider sound insulation in order to mitigate sound transmission between spaces.



Good acoustic conditions improve patient **privacy and dignity** and promote essential **sleep** patterns. Such conditions are key to **healing**.

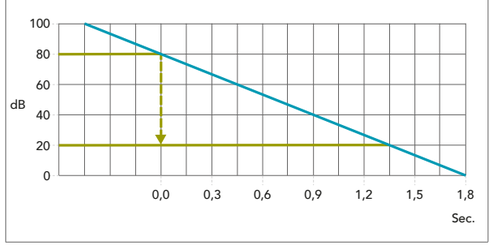
ACOUSTIC PARAMETERS

Reverberation time, STI (Speech Transmission Index) and Signal-to-Noise Ratio are the three most important parameters characterising speech intelligibility.

REVERBERATION TIME

Expressed in seconds, this is the time it takes for a sound to drop by 60 dB after a source stops generating the sound. The lower the reverberation time, the less echo.

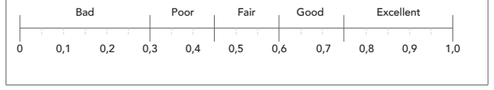
Reverberation time



STI (SPEECH TRANSMISSION INDEX)

This value describes how well speech is heard and understood (speech intelligibility) on a scale from 0 (bad) to 1 (excellent).

STI scale (Speech Transmission Index)



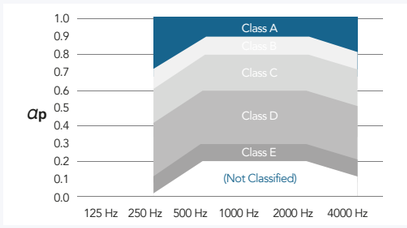
A common result of **noise** in operating theatres is communication interference and is a leading cause of poor operation outcome.

ACOUSTIC REMEDIES EXPLAINED

SOUND ABSORPTION (α_w)

Sound Absorption reduces reverberation. Acoustics improve by reducing the disturbing echo and controlling noise levels, thus ensuring good speech intelligibility.

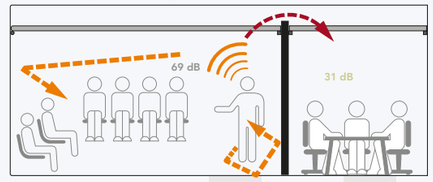
Absorption coefficient (αω) expresses how sound behaves in a room which determines the classification of a material.



SOUND INSULATION ($D_{n,f,w}$)

Sound insulation can prevent noise from travelling. It increases room confidentiality and privacy and stops noise from interfering with concentration levels.

Low absorption ceiling w = 0.1

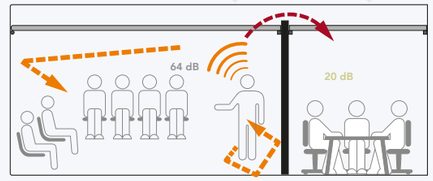


With low absorption ceiling aw = 0.1 a speaking person generates a sound pressure level of 69 dB.

- 5 dB

- 11 dB

High absorption ceiling αw = 0.9



With high absorption ceiling aw = 0.9 a speaking pressure level of 64 dB.

With an identical $D_{n,f,w}$ value (in this case 46 dB), a high-absorbing ceiling contributes to a lower sound pressure level than a low-absorbing ceiling.

As awareness of the negative effects of noise pollution in the built environment has risen, leading to legislation and guidance being improved for acoustics. Regulations and guidance for Healthcare environments underline the importance of acoustic design.

- HBN-0010, the Health Building Note Part B, Walls and Ceilings states: Strategic design is determined by acoustic and fire strategies for the building.

- HTM 08-01, the Health Technical Memorandum on Acoustics provides guidance on noise levels, sound insulation and sound absorption. It emphasises that acoustic design is fundamental to the quality of healthcare buildings.

REGULATIONS AND GUIDANCE IN HEALTHCARE

Part B: Walls and ceilings

HBN 00-10 Department of Health

Acoustics HTM 08-01

Department of Health

WHBN 00-09 NHS Wales Shared Service Partnership

SHFN 30 Part A National Services Scotland

84% of anaesthesiologists reported that the **noise levels** in their **operating rooms negatively affected** their work.

Source: The consequence of poor acoustics in hospitals, Katz, J. D, MD, Noise in the Operating Room, The American Society of Anesthesiologists, Inc.; 2014

OUR RECOMMENDATIONS

Our recommendations for acoustic comfort in healthcare conform to HTM 08-01 Acoustics for hospitals and other healthcare buildings.

HTM 08-01 emphasises that good acoustics are key to healing and underlines that benefits go beyond patient wellbeing to have a positive impact on staff and all-round improved efficiency.

A minimum absorption area equivalent to a Class C absorber should be used but ceilings with a higher level of absorption (Class A or B) contribute to a more pleasant acoustic environment and allow for more services or plasterboard margins to be incorporated into the ceiling.

ROCKFON RECOMMENDATIONS FOR VARIOUS ROOM TYPES

Room type	Recommendation*
Entrance hall	T = 1.0-1.2 sec.
Circulation corridor	T = 1.0-1.3 sec.
Patient room	T = 0.5-0.7 sec.
Office room	T = 0.5-0.7 sec.
Small meeting room	T = 0.6-0.8 sec.
Large meeting room	T = 0.8-1.0 sec.
Kitchen	T = 1.0-1.2 sec.
Cafeteria	T = 0.8-1.0 sec.
Auditorium	T = 1.0-1.2 sec.
Atrium	T = 1.5-3.0 sec.
Ward / Examination room	Class A ceiling covering > 90% floor area
Corridor / Street	A ceiling covering > 90% floor area

** T is the reverberation time, expressed in seconds. It signifies the time it takes for a sound to drop by 60dB after a source stopes generating the sound. The lower the T, the less echo*

How Rockfon contributes to acoustic comfort

- Most Rockfon products achieve Class A sound absorption greater than 0.90 (aw), which means that at least 90% of the sound energy is absorbed or dissipated.

- Installing Rockfon ceilings, wall panels, baffles and/or islands will reduce reverberation/echo.

- For larger size spaces such as atria and reception areas, use of wall panels is recommended to reduce standing waves and flutter echoes and ensure optimum sound absorption. Wall panels should be used on at least two adjacent walls to ensure uniform speech intelligibility around the room.

- Installing a Rockfon dB ceiling will reduce the reverberant sound level as well as insulate against intrusive noise from service installations in the ceiling void and from adjacent spaces.

- Our solutions which provide sound absorption in low frequencies contribute to better speech intelligibility.

- Our range of acoustic barriers are designed to complement the dB range as light fittings and the joints between the partition wall and ceiling are often the most critical areas for unwanted sound transmission.

02 Hygiene

Our ceilings are BSRIA tested to be resistant to harmful micro-organisms such as MRSA and bacteria

As many as **10%** of all patients contract an infection while they are in hospital. We want to help reduce the risk.

HYGIENIC SURFACES

In a healthcare environment where the spread of hospital acquired infections is a constant battle, it is particularly important that building materials should not release dust particles or harbour bacteria.

The Department of Health guidelines discourage the use of carpets and furthermore state:

"If carpets cannot be used for sound absorption, acoustics need to be built into other surfaces, with ceilings being the most obvious choice as the single, largest, uninterrupted area of a room."
HBN 00-10 Infection Control

Our ceilings are made from stone wool which is naturally water repellent, non-hygroscopic and humidity resistant. With no nutritional value, they offer no substance for micro-organisms to grow. They are smooth, robust and easy to clean and disinfect, whether wipe clean, steam clean or cleaning with harsh chemicals. These hygienic properties make Rockfon ceilings the ideal choice for healthcare where hygiene and cleanability is of paramount importance.

MEDICARE

Our Rockfon® MediCare® range has been specifically developed for the demands of the healthcare environment. Fully compliant with HTM 60. Our range meets the classifications for all clean-room facilities.

MRI scanner room

BSRIA test for micro-organism resistance show that our products do not allow the following micro-organisms to grow*

- Escherichia coli
- Staphylococcus aureus
- Methicillin-resistant staphylococcus aureus (MRSA)
- Stachybotrys chartarum
- Penicillium brevicumpactum
- Alternaria tenuissima
- Aspergillus niger
- Sporobolomyces roseum
- Rhodotorula rubra

*(tested in accordance with JIS Z 2801:2000, ASTM C 1338-96 and BS 3900 Part G6-)

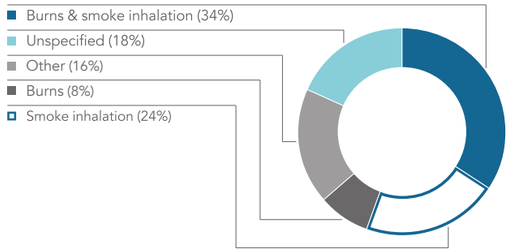
Rockfon's MediCare range has achieved Bacteriological Class B10-B1 - the best possible class. (The lower the classification, this means that micro-organisms spread less readily over the surface of our product.)

03 Fire safety of building materials

Our products conform to the safest fire classification - A1

UNDERSTANDING FIRE BEHAVIOUR

Every building fire is a disaster, especially when lives are lost. Two thirds of all fire victims are as a result of breathing in smoke, poisonous gases and flaming droplets/particles. Fire safety is of strategic importance in healthcare as buildings are heavily occupied, sometimes 24 hours a day, with people who are frequently unfamiliar with their surroundings or less mobile.



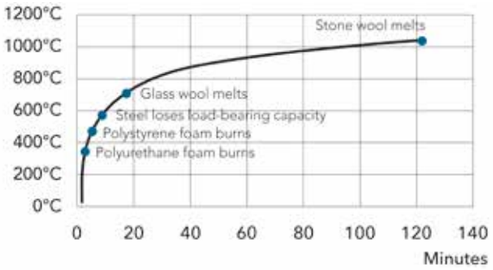
In Europe there are two parameters related to fire safety and prevention that apply to construction materials:

- Reaction to fire determines whether a material fuels a fire. The reaction to fire evaluation criteria are the material's ignitability, rate of heat release, rate of spread of flame, rate of smoke production, flaming droplets/particles and/or a combination of these safety aspects.

- Fire resistance indicates how well a building component – for a stated period of time – can resist and hold back a fire and prevent it from penetrating from one room to another.

ASK FOR CLASS A1

- Rockfon products are fire safe, rated in Euroclasses. Most products are rated **A1**, meaning they are **non-combustible** and the safest possible, allowing extra time for evacuation in case of fire.
- All relevant Rockfon ceiling tiles have been CE marked since October 2005, across all our factories in Europe. In addition, Rockfon has chosen the highest level of attestation of conformity (AOC). This means that the independent certification organisation has verified our initial type testing program and audits our entire supply chain twice a year.



Behaviour of different materials according to the standard time/temperature curve of Fire resistance standard ISO 834.

Building Regulations, Approved Document B* Section 6: Wall and ceiling linings		
Location	National Class[1]	European Class[1][3][4]
Small Rooms[2] of an area more than: a. 4m² in residential accommodation b. 30m² in non-residential accommodation	3	D-s3, d2
Other rooms[2] (including garages)	1	C-s3, d2
Circulation spaces within dwellings		
Other circulation spaces, including the common areas of block of flats	0	B-s3, d2[5]

*Crown Copyright

	National Classification	Euro Classification		National Classification	Euro Classification
United Kingdom	Non-Combustible	A1 (provision for non testing)	Ireland	Non-Combustible	A1 without further testing
	Limited-Combustible	A2-s3, d2 or better		Limited-Combustible	A2-s3, d2
	Class 0	B-s3, d2 or better		Class 0	B-s3, d2
	Class 1	C-s3, d2 or better		Class 1	C-s3, d2
	Class 3	D-s3, d2 or better		Class 3	D-s3, d2

These tables show an extract from National Translations of Euroclasses for Reaction to Fire (2006).

These regulations & means of demonstrating compliance were implemented in 2002.

Stone wool which is made from naturally occurring diabase rock is **non-combustible,** achieves **Class A1** and makes no contribution to the spread of fire.

04 Design for wellbeing

Create healing spaces to promote health and wellbeing

Designing the hospital of the future

Recent studies have shown that a beautiful and tranquil environment has a positive effect on a patient's healing process.
Colours are an important element in healing architecture and can be used to relax or stimulate patients, depending on the healthcare environment.

Healthcare environments are increasingly moving away from the traditional institutional look, transforming into more creative spaces that look like homes or hotels rather than hospitals or old-fashioned care homes.

Rockfon offer a wide range of design options for ceilings, wall panels, islands and baffles, whilst maintaining its high performance properties. Available in a large choice of colours as well as super white and standard white, Rockfon products withstand challenging conditions to provide both functional and aesthetic design freedom.

In spaces where carpets are often not appropriate for hygiene reasons, acoustic ceiling surfaces are the ideal choice for aesthetic and acoustic comfort ...to create an individual, inspiring and uplifting design with appropriate acoustics to enhance well-being.

Choose from four different visual elements to create the perfect look and performance:

Surfaces | Colours | Edges | Sizes

Morriston Hospital Eclipse islands

- Rockfon has an extensive product portfolio offering many different ceiling solutions – such as suspended ceilings, wall panels, islands and baffles – allowing for flexible design freedom.
- Super white, standard white and 34 standard colours to choose from.
- Visible and concealed grid systems to meet your budget, aesthetic and functional requirements.

ProCure 22, or P22, is a Department of Health administered Construction Procurement Framework designed to streamline the procurement process by introducing standardised design elements.

Repeatable Rooms is for four-bed wards with a layout which ensures each patient is visible from the ward entrance. It enables patient interaction but also space for privacy, provides access to en-suite facilities and the design allows for art and light to improve wellbeing.

It also supports increased efficiency and productivity and supporting better clinical outcomes for patients and improved environments for staff and visitors.

05 Refurbishment potential

Creating flexible healthcare spaces for the future

Many healthcare buildings lack effective acoustic performance. This is partly due to hard surface ceilings which may minimise cleaning, but certainly do not favour the acoustic environment. This, along with a change to facilities from medical and social care working in closer co-operation, means the healthcare sector as a whole is under increasing pressure to maximise utilisation of its assets, and redevelop and refurbish to make necessary improvements.

FLEXIBLE DESIGN

Extension and refurbishment require flexibility so that the building can adapt as spaces are reconfigured. Whether the shape of the space or the mechanical and electrical installations in voids above suspended ceilings which need to allow access for this to occur.

Hard surface materials are still needed in healthcare designs, and while they can contribute to better hygiene, the acoustics will suffer as a result. This can lead to unsatisfactory acoustics if not properly integrated at the early stages of design.

Acoustic panels and ceilings may be installed to remedy acoustic challenges not considered in the initial design or which are created by increasing noise sources and introduction of hard surfaces.

Rockfon products:

- Are light in weight and easy to cut, reducing installation time.
- Can be cut in one stroke with full precision without special machinery and without breaking.
- Don't generate dust so can be cut on site within in the building.

CREATING HEALTHCARE SPACES FIT FOR THE FUTURE

Experience has shown that both new installations and refurbishments using a Rockfon ceiling can achieve significant acoustic improvements. This makes installing a Rockfon ceiling a cost-effective refurbishment option with acoustics benefits which can be tailored perfectly to suit any existing healthcare building.

Rockfon offers ceiling and walling options for every refurbishment challenge:

- HVAC and services can hide neatly behind the ceiling with easy access. Installing Rockfon corridor solutions with wide planks and fewer hangers make access to lighting, pipes and other services in the ceiling void even easier.
- Our wall panels, ceiling Islands and vertical baffles can be retrospectively installed as room acoustic improvements and are suitable for thermal mass buildings.
- In older buildings where the ceiling height and high windows don't accommodate installation of a suspended ceiling, we provide high sound absorption ceiling options which can be installed directly to the soffit.
- To meet the challenges of existing architecture and style, Rockfon products have a classic, clean look that complements past architecture. Our frameless islands and monolithic ceiling and wall solutions blend seamlessly into their surroundings or generate an exciting contrast.
- Our wall panels, ceiling Islands and vertical baffles can be retrospectively installed as room acoustic improvements, as well as being suitable for thermal mass buildings.

06 Visual comfort

Effective lighting is proven to benefit health and wellbeing

THE POWER OF LIGHT

Visual comfort has been proven to have far reaching positive effects on health and wellbeing. Natural daylight benefits a patient's circadian rhythm and sleep quality. This improves wellbeing and recovery time, and lowers mortality rates, pain and stress.

In a hospital ward, the quality of daylight has an impact on the patients' stay. Good ward designs should incorporate sightlines to natural daylight and can help to reduce length of stays in hospital, as confirmed by the ProCure 22 design guidelines.

Critical design considerations for lighting in healthcare settings are:

- Maximising natural daylight, balancing artificial lighting and combining the right combination of light deflecting and diffusing surfaces.
- Minimising glare through use of high light reflecting surfaces which draw daylight further into a space and reduce the need for artificial lighting.
- Light reflecting surfaces can also increase energy efficiency and reduce energy costs by minimising the need for artificial lighting.

HOW ROCKFON CONTRIBUTE TO VISUAL COMFORT

- The majority of Rockfon ceilings have a bright white surface which provides optimum light reflection and contributes to a comfortable environment.
- Our range includes attractive, smooth, super white surfaces with optimal light reflection and high light diffusion to eliminate glare and reduce eye disturbance.
- Rockfon ceilings with a light reflection of 87% can draw light 11% further into a building. Spreading light further into the building optimises daylight and lowers the need for artificial lights.
- Ceilings with a concealed grid offer an even, more calming surface for patients on beds or gurneys.

Patients in hospitals have been shown to display **higher levels of agitation** in rooms with **less light.**

Ref: The Impact of Light on outcomes in Healthcare Settings, Njali Joseph, Ph.D. Director of Research, the Center for Health Design, Issue Paper 2 (August 2006)

Those in **sunny rooms** had an **average stay of 16.9 days** compared to 19.5 days for those in dull rooms, **a difference of 2.6 days** (15%).

Ref: Kathleen M Beauchemin, Peter Hays, Sunny hospital rooms expedite recovery from severe and refractory depressions, Journal of Affective Disorders 40 (1996) 49-51

07 Indoor environment

Choose products that conform to the most stringent indoor environment certification

IMPROVING HEALTH AND WELLBEING

People naturally want to live in a healthy environment. The indoors is just as important as the conditions outside: temperature, air quality and acoustics are all part of creating a beneficial and healthy indoor environment. As we now spend up to 90% of our daily lives inside, it's important to make it as healthy and productive as possible.

INDOOR AIR QUALITY

More and more people suffer from allergic reactions, respiratory illness or skin problems. Humidity, combined with certain construction materials, can promote the development of micro-organisms such as mould or bacteria that cause these effects. Air quality during winter needs to be improved, and high temperatures during summer need to be under better control.

Carefully selecting building material for new builds and refurbishments reduces indoor pollutants and contributes to the creation of healthier interiors. Look out for voluntary eco-labels "Indoor Climate Label" and "Emission Classification for Building Materials" which test for VOC (Volatile Organic Compound) release and emissions.

HOW ROCKFON CAN CONTRIBUTE TO A SOUND INDOOR ENVIRONMENT?

- Rockfon products all have low emissions of particles and substances into indoor environments, and have been awarded voluntary eco-labels to show that they go beyond legal requirements.
- A representative selection of Rockfon products were awarded the Indoor Climate Label (ICL) and the Finnish Classification of Indoor Climate Label (M1) which are the most stringent standards in Europe.
- Our stone wall ceilings are non-hygroscopic and resist humidity levels up to 100% RH.

THE INDOOR CLIMATE LABEL

EMISSION CLASS FOR BUILDING MATERIAL M1

Morriston Hospital

08 Sustainability

Source environmentally sound products which can be recycled back into their own production process

SUSTAINABLE PRODUCTS

In a circular economy, products should be used for as long as possible – and reused to the greatest extent possible when they reach the end of their service life. As part of the ROCKWOOL Group, we provide long-lasting solutions for buildings – such as insulation, acoustic ceilings and external facades that can be recycled indefinitely.

We use a natural product, renewable volcanic rock, to give back to nature. Thanks to the unique durability and recyclability of ROCKWOOL products, we can help our customers create more resilient buildings and cities that ultimately enrich modern living.

Diabase rock and recycled materials are melted at temperatures above 1500°C to make stone wool. At this heat level, organic waste is burned cleanly to produce energy, reducing factory consumption of fossil fuels.

Every year the earth's volcanoes and plate tectonics produce

38,000 times

more rock material than is being used to make the stone wool used in ROCKWOOL products and Rockfon acoustic ceilings.

ROCKWOOL and Rockfon factories receive

500,000 tonnes

of waste materials from other industries annually – six times more waste than they send to landfill.

LET'S NOT WASTE IT

The building sector produces approximately one-third of all waste globally, much of which ends up in landfill. We know that it doesn't have to be this way. Due to the design of our stone wool production, it's possible to use materials that might otherwise be landfilled or downcycled. In fact, approximately one-third of the raw material used in our production is repurposed waste from other industries, power plants and municipal waste water treatment.

Source: ROCKWOOL Sustainability Report 2017

CONTRIBUTING TO A BETTER FUTURE

Rockfon products are fully recyclable and can help you achieve your CSR targets.

Any age and any quantity of end of life tiles, site waste and offcuts can be recycled back at the ROCKWOOL factory in Wales.

1 m^3

of stone corresponds to

2,200 m^2 of 15 mm

ceiling tiles which is enough ceiling to cover eight tennis courts.

Rockfon can also upcycle any age and quantity of competitor wet felt products when Rockfon ceiling tiles are installed in their place.

Rockfon's recycling is upcycling. In traditional recycling, products made from recycled materials can be of lesser quality than products made from new materials. Rockfon processes waste products into new fibres having the same qualities as those made from new or virgin materials.

- The rock used in our stone wool is not a scarce resource.
- Rockfon stone wool products contain up to 84% recycled and renewable content.
- A wide range of Rockfon products comply with several environmental declaration schemes, such as FDES (France) and Sunda Hus (Sweden).
- Rockfon products supplied in the UK are manufactured at ISO 14001 certified factories.

Product Sustainability Declarations and Environmental Product Declarations are available for all products we supply and can be found at www.rockfon.co.uk.

09 Facility management

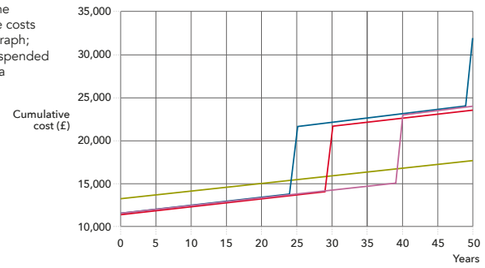
Build for the future with easy to maintain, adaptable materials

Cheap can become expensive. What looks like a cost-effective solution in the short term might lead to high costs in the long run.

Future maintenance and whole life cycle costs need to be an integral consideration in the original designs of healthcare buildings. Building materials used in healthcare need to be easy to maintain without the risk of damage.

Overview of whole life costs for 50 years

An overview of the relative whole life costs is shown in this graph; modelling the suspended ceiling tiles over a 50 year period.



	Rockfon MediCare Plus		Rockfon Artic
	Generic wet-felted mineral-fibre		Rockfon MediCare

The beginning of the cost lines represents the capital cost for each system.
The gradual slope of the cost lines indicates operational costs associated with maintenance and cleaning.
Steps indicate costs associated with component replacement.
The end point of the cost lines shows the cumulative costs for each suspended ceiling system at the end of the period of analysis.

HOW WE CAN EASE YOUR FACILITY MANAGEMENT

- Our products are light in weight and therefore easy to demount which allows for quick access for repair and maintenance of service installations in the ceiling void.

- Rockfon products are easy to replace. A and E edge ceiling tiles can be replaced by personnel not necessarily experienced in full ceiling installations.

- They can withstand frequent cleaning and high humidity conditions, which makes them particularly suitable for areas such as operating theatres, wards, surgeries, kitchens, showers and bathroom facilities, etc.

Make access to heavily serviced ceiling voids easy by choosing a corridor system which uses less hangers, and larger tile and planks, keeping the void as unhindered as possible to allow for the installation and maintenance of the services that it hides.

Forth Valley Hospital

- Ceiling tiles with highly durable surfaces are easy to clean and disinfect. They can withstand general cleaning regimes and specialist products can also be cleaned using steam cleaning and high-pressure equipment.

- Our products are durable, easy to clean and can withstand even extreme climatic conditions whilst still remaining dimensionally stable. Our tiles will not warp, deflect or break easily. This is why we offer a 15-year product guarantee.

10 Experts in healthcare interiors

Specify Rockfon products for a bright future

This table provides initial guidance for specification solutions covering ceilings, wall panels and discontinuous ceilings, in the form of islands and baffles, for many healthcare spaces.

	Ceilings	Wall panels	Islands & Baffles
Entrance halls			
	Rockfon Blanka Rockfon MediCare Standard Rockfon MediCare Plus Rockfon Color-all Rockfon Mono Acoustic	Rockfon Color-all Rockfon VertiQ Rockfon Eclipse Wall	Rockfon Eclipse Rockfon Eclipse Freeform Rockfon Contour
Registration, information areas & waiting rooms			
	Rockfon Blanka Rockfon MediCare Standard Rockfon MediCare Plus Rockfon Color-all	Rockfon Color-all Rockfon VertiQ Rockfon Eclipse Wall	
Corridors & stairwells			
	Rockfon MediCare Plus Rockfon Blanka Rockfon Color-all	Rockfon VertiQ Rockfon Eclipse Wall	
Offices, consultation & examination rooms			
	Rockfon MediCare Standard Rockfon MediCare Plus Rockfon Blanka Rockfon Blanka dB Rockfon Color-all	Rockfon Color-all Rockfon VertiQ Rockfon Eclipse Wall	
Emergency treatment rooms & OR's			
	Rockfon MediCare Air Rockfon MediCare Block*		
Patient rooms & wards			
	Rockfon Blanka Rockfon MediCare Standard Rockfon MediCare Plus		
Cafeteria & common areas			
	Rockfon Blanka Rockfon Tropic Rockfon MediCare Standard Rockfon MediCare Plus Rockfon Color-all	Rockfon Blanka Activity Rockfon Color-all Rockfon VertiQ Rockfon Eclipse Wall	Rockfon Eclipse Rockfon Eclipse Freeform Rockfon Contour
Bathrooms, toilets and washing facilities			
* Subject to client approval for use of exposed grid	Rockfon MediCare Standard Rockfon MediCare Plus Rockfon Hygienic		

THE UNIQUE BENEFITS OF ROCKFON STONE WOOL CEILINGS FOR HEALTHCARE

The main strengths of our acoustic ceiling solutions are generated through the unique properties of stone wool, made from naturally occurring diabase rock.

They protect people from noise and the spread of fire and are a fast and simple way to create beautiful, healthy and comfortable spaces. Easy to install and durable, they make a constructive contribution toward a sustainable future.
Over the past thirty years we have supplied numerous healthcare projects throughout the UK as well as being a successful partner to framework agreements such as ProCure 21 and now with ProCure 22.

Log onto **www.rockfon.co.uk** to access our Resource section where you will find libraries for our Datasheets, System Descriptions, Videos, CAD drawings and BIM Objects.

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