



HEALTH AND HEALING

THE ROCKFON ADVANTAGE

activeceilings®

ROCKWOOL
Rockfon®
ACTIVATE YOUR CEILING



Creating safe and sustainable healing environments with Rockfon

Ceilings matter!

The installation of a well-designed ceiling in a healthcare environment can contribute significantly to the healing process and to general wellbeing.

This brochure demonstrates how Rockfon ceilings can meet the stringent functional requirements within the healthcare sector, whilst also enhancing the latest architectural trends.

Creating comfortable, safe and nurturing patient-care environments is a priority for architects.

Design in healthcare has become a key issue.

In addition, hospital administrators are continually searching for proven, cost-effective strategies to improve the budget and bottom line in all areas, from enhancing patient safety to maintaining staff productivity.

Rockfon ceiling solutions contribute to meeting these goals. They comply with the British Health Technical Memoranda, HTM 60 Ceilings and HTM 08-01 Acoustics, for use in healthcare applications.

The healing environment	4
Design	4
<i>Amsterdam, The Netherlands:</i>	
<i>Emma Children's Hospital</i>	6
Colour and emotions	8
<i>Paris, France:</i>	
<i>Children's Centre, Robert Debré Hospital</i>	10
Acoustic comfort	12
The safe environment	14
Hygienic safety	14
Indoor air quality	16
Fire safety	17
The sustainable environment	18
<i>London, England:</i>	
<i>Barts & The Royal London Hospitals</i>	20
Healthcare facilities: A virtual tour	22
Entrance halls	22
Registration, information areas and waiting rooms	23
Corridors and stairwells	24
Offices, consultation and examination rooms	25
Emergency, treatment rooms and operating theatres	26
Patient rooms and wards	27
Cafeteria and communal areas	28
Bathrooms and washing facilities	29
Product recommendations	30

The healing environment

The creation of healing environments forms part of a humanistic approach to architecture where design and acoustic comfort help to create optimum healing environments that support and enhance the care and treatment given. Patients, visitors and healthcare professionals are at the heart of this design process.

When designing a healthcare facility, designers need to understand how and why spaces can become therapeutic to those occupying them. How individuals perceive these environments is the key concern of the designer and influences the way they select materials, including acoustic ceilings.



Design

Ceilings contribute to creating more welcoming healthcare environments.

One of the most important considerations for healthcare and medical facilities is design. The interior modelling of these facilities focuses on reflecting the warmth and care that is provided by the hospital services.

Healthcare design is moving away from the harsh, cold atmosphere of previous generations to focus on a warmer environment, incorporating many different design elements and offering a more aesthetic appeal and hotel-like ambiance.

As a general holistic approach to healing, healthcare design has been given a face-lift.

The art of holistic healing must begin with the environment in which patients, doctors and visitors spend the majority of their time, making proper healthcare design essential.



Entrances need to be inviting.



Waiting rooms are becoming like hotel lobbies.



Treatment/patient rooms are functional, yet comfortable.



The use of colour plays an important role in the wellbeing of staff, patients and visitors.

Amsterdam, The Netherlands

Emma Children's Hospital

Putting the child at the heart of the hospital

The Emma Children's Hospital in Amsterdam, The Netherlands, is situated on the top floor of Amsterdam's University Medical Centre (AMC). The architects, OD205 Architectuur from Delft, designed the building in close cooperation with the interior design agency, OPERA from Amsterdam.

In its design concept, OD205 Architectuur moved away from traditional hospital layouts – often characterised by endless corridors with doors on either side, allowing little daylight to enter the building. The use of daylight was a primary requirement in the new building plan.

The patient rooms are all situated along the perimeter of the building to let in as much daylight as possible. All supporting functions (nursing, registration, meeting rooms, etc.) have been brought to the core of the hospital in a corridor zone called 'the parade'. The parade connects the public parts of the hospital to the more private and secure patient rooms.

The social character of the hospital has dominated the design. One primary concern was that children should

be able to lead as normal a social life as possible within the hospital walls. This is why the hospital houses both a kindergarten and a primary school.

OPERA was responsible for the colour concept, focusing mainly on the wall space. Every department was given a specific theme and colour spectrum, supported by the use of signage and icons.

Due to the ever-present hygiene requirements, OD205 Architectuur incorporated predominantly hard materials that are easy to clean (such as glass, hard walls and hard floors) but which are also highly sound reflective. Consequently, a critical function of the ceilings is their acoustic performance.

OD205 Architectuur used as few traditional lay-in ceiling tiles as possible, as this would only reinforce the clinical, old-fashioned hospital image. The wide variety of Rockfon ceilings helped to develop a more modern, aesthetic solution. The result is the use of monolithic Mono Acoustic ceilings in the public areas. However, where ceiling voids need to be accessible, demountable solutions are used. Installations and cabling are hidden behind a suspended ceiling just above the patient room entrances. Above the patient beds, a ceiling with concealed grids creates a more

homely atmosphere. In patient bathrooms, specialised hygienic Rockfon products are used. All these various installations prove that Rockfon products offer architects the freedom of design to put their ideas into practice in the most demanding and varied of environments. Personnel and patients are extremely pleased with the results.

OD205 Architectuur is convinced that acoustic ceilings are – and will continue to be – an important element in healthcare constructions with a mix of technical products used in functional areas and design solutions in public areas. This allows architects to break through the cliché of traditional hospital buildings, something which OD205 Architectuur and OPERA succeeded in doing very well for Emma Children's Hospital.





Colour and emotions

Rockfon products are available in a large range of different colours, textures, edges and dimensions so that designers can optimise the architecture of every healing environment.

The emotional experience people have with colour depends on past experience, cultural background and feelings. Colour can help hospitals and other healthcare facilities communicate with their patients, visitors and staff, creating healthy and healing environments.

Colour is a medium that tells a story. A ceiling, with consideration for the choice of panel edges and dimensions, can bring structure, order and clarity to any healthcare environment.

The traditional use of colour in flooring and walls can be carried further to the ceilings to help influence the perceived quality of accommodation and make visitors, patients and healthcare professionals feel valued and significant.

REJECTING OLD ASSUMPTIONS

In hospitals, white is traditionally perceived as being pure and clean. However, with the focus now moving towards the creation of healing environments, a colour choice for ceilings – depending on the surroundings – is open to different off-whites or bolder colours.

QUALITY PERCEPTION

The perception of quality in every healthcare facility starts at the entrance. Entrances need to be inviting, with a friendly atmosphere, so visitors and patients immediately feel at home.



ORIENTATION

Healthcare facilities are often very large buildings that are not easy to navigate. Colours can be used to help distinguish between different departments or floors, and can aid navigation of visitors to the right department.

WARM VERSUS COLD

Visiting or staying in a hospital or other healthcare facility can be stressful. The use of warm colours can put visitors and patients at ease.



Paris, France

Children's Centre, Robert Debré Hospital

The Children's Centre at Robert Debré Hospital in Paris is a space dedicated to the children being treated at the hospital. Covering 250 m², it comprises a large playroom, an art room and several classrooms. These rooms can accommodate up to 30 children between zero and 18 years of age. The additional challenge was to provide good acoustic performance within a space aimed at young users and, at the same time, bring a touch of originality and fun to make the children feel more at ease there.

A more modern and cheerful colour scheme was needed. Four tones from Rockfon's colour range were chosen. The installation of these coloured tiles in a checkerboard pattern brings originality, vitality and a touch of humour to a space more often associated with clinical whiteness, all whilst ensuring a high level of acoustic performance and excellent fire safety.

Rockfon's extensive colour range allows architects to create unique and original spaces in line with the expectations and requirements of the specific environment. Moreover, the consistent high quality of Rockfon ceilings means they comply with the various requirements of healthcare environments in terms of acoustics, hygiene and fire safety.

Safety and acoustic performance can successfully combine with originality, boldness and fun.





Acoustic comfort

Ceilings are key elements for ensuring acoustic comfort.

High levels of unwanted sound can lead to an increase in heart rate, blood pressure, respiration rate and even blood cholesterol levels.¹⁾ There are two major factors to consider here: the source of the noise and the extensive use of hard materials which offer ease of cleaning and disinfection. Reducing the number of noise sources is ideal, but it is unrealistic to stop people talking in corridors or silence the essential monitoring and cleaning equipment.

The extensive use of sound-reflective hard surfaces needs to be compensated for with highly sound-absorbent materials that are long-lasting and easy to clean. A high-performance Rockfon ceiling is the safe solution for improved speech intelligibility, in which easy, confidential communication between doctor and patient is optimised.

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.

T = Reverberation time



1) Health Technical Memorandum 08-01: Acoustics

ROCKFON PRODUCTS PROVIDE OPTIMUM ACOUSTIC COMFORT

- *Highest class in sound absorption for optimum speech intelligibility*
- *Best combination of sound absorption and sound insulation (Sonar and Tropic dB-range) for optimum privacy*



The safe environment

More than any other factor, safety is of paramount importance in healthcare facilities – in terms of hygiene, indoor air quality and risk of fire. Even the smallest of incidences must be prevented.



Hygienic safety

In most European countries, the number of nosocomial infections (also known as hospital-acquired infections) is growing year by year. The fight against these types of bacterial infections is of prime concern to hygienists, facility managers, hospital directors and healthcare providers.

Healthcare facility building materials must combine durable surfaces with good hygienic properties and be easy to clean and disinfect – all while maintaining their basic functional and aesthetic characteristics. They should also not have a negative impact on the control of air cleanliness, which is essential in preventing the spread of infections in healthcare establishments.

The MediCare range

Rockfon's MediCare range is specifically developed for use in healthcare environments. This product range combines high-level hygienic surface properties with optimum ease of cleaning and disinfection.

All crucial parameters for hygiene have been tested and documented by external laboratories. Test reports are available on request.

Resistance to micro-organisms

Excessive humidity and moisture in a building can promote the growth of micro-organisms such as mould or bacteria which cause allergic reactions, respiratory illnesses and skin problems. The inorganic nature and water-repellency of the

Rockfon stone wool core provides no sustenance to harmful micro-organisms.

MediCare products have been tested with the following micro-organisms and obtained bacteriological class B10 or better which fulfils the requirements of Zone 4 (very high-risk area) as defined by the French norm NF S 90-351 for resisting:

- Methicillin Resistant Staphylococcus Aureus (MRSA), bacteria resistant to antibiotics and responsible for post-surgery infections and septicaemias
- Candida Albicans, yeast responsible for skin infections and pneumonias
- Aspergillus Niger, mould responsible for pneumonias

Cleaning

Depending on where they are used, building materials must withstand the different cleaning and disinfecting methods used in healthcare. Vacuum cleaning or dry cleaning of low-risk areas is common, but cleaning and disinfection with disinfectants (e.g. hydrogen peroxide, chlorine, ammonia, quaternary ammonium) is a requirement in higher-risk areas. Steam cleaning is also a method gaining popularity in hospitals due to its efficiency and environmental advantages – no use of chemicals, no personnel protection needed (e.g. gloves) and the low quantity of water needed.

All MediCare surfaces are resistant to common cleaning methods used in healthcare facilities. Additionally, the surfaces of MediCare Plus and MediCare Air have enhanced resistance, are water-repellent and resist dilutions of ammonia, chlorine, quaternary ammonium and hydrogen peroxide.

The surface of MediCare Plus and MediCare Air can be cleaned and disinfected by steam cleaning. The bactericidal and fungicidal effect of steam cleaning on both products has been tested and meets the requirements of NF EN 14561 (> 5 log10) and NF EN 14562 (> 4 log10), which means that the disinfection is very effective.

HTM 60

The *HTM 60: Ceilings* guideline is published by the Department of Health to help healthcare professionals and designers make the right choices when creating a hygienic and fire-safe environment. This guideline defines six categories of ceiling performance where surface physical properties, humidity resistance and fire properties are the main criteria. Depending on the department and activity space, *HTM 60* recommends a category of ceiling performance as either essential or optional. The MediCare range is *HTM 60* compliant in categories 2, 3, 4, 5 and 6. www.hfs.scot.nhs.uk/publications/shtm-60.pdf

HTM 60 requirements

Physical and performance characteristics		Categories of ceiling performance					
		1	2	3	4	5	6
Soffit:	Smooth	●	●	●	○	○	○
	Textured				○	○	○
	Imperforate	●	●	●	○	●	○
	Perforated				○		○
	Jointless	●	○	○	○	○	○
	Jointed		○	○	○	○	○
Humidity:	Normal (25% to 65% RH at 10°C to 25°C)	●		●	●	●	●
	High (25% to 100% RH at 10°C to 30°C)		●				
Spread of flame:	Class 1	●	●	●		●	●
	Class 0				●		

● – Indicates essential requirement ○ – Indicates options

Air pressure control

Creating air pressure difference between hospital areas is used to control airborne contamination, protecting patients and staff in high-risk situations. MediCare Air has been developed especially for such areas. Due to its airtight high-performance membrane and sealed edges, MediCare Air fulfils the stringent pressure level requirements of these areas.

NF S 90-351 requirements

Designation of the zone	Particle class of the zone to be protected	Target level of kinetic of particle decontamination class at 0.5 µm	Target level of bacteriological class of the zone to be protected
Zone 4	ISO 5 < 3,500 particles ≥ 0.5 µm/m ³ of air	CP 10	B 10
Zone 3	ISO 7 < 350,000 particles ≥ 0.5 µm/m ³ of air	CP 20	B 10
Zone 2	ISO 8 < 3,500,000 particles ≥ 0.5 µm/m ³ of air	CP 20	B 100
Zone 1	No specific requirements		

NF S 90-351

The French norm NF S 90-351 defines requirements to air treatment systems used in clean rooms and related healthcare facilities for the control of airborne contamination. The norm defines various levels of infection risk varying from low risk (such as administration offices and waiting areas) through to very high risk (including operating theatres, burns units and intensive care). To meet these requirements, building materials should not have a negative impact on air quality control.

The norm defines zone treatment performance levels in terms of:

- Classification of air cleanliness in accordance with ISO 14644-1: the ISO Class or clean room classification determines the concentration of particles in an environment. Particles contribute to infection spreading in healthcare facilities, therefore their concentration must be controlled and kept to a minimum. Building materials should not have a negative impact on this parameter.
- Bacteriological class (UFC/m³ air) defines the maximum concentration of colony-forming units (UFC) micro-organisms per m³ of air acceptable (e.g. B10 = max. 10 UFC/m³ air). Building materials should not contribute to the spreading of micro-organisms in an environment.
- Kinetic of decontamination is the time in minutes needed for the air flow system to obtain 90% decontamination after a peak of pollution (e.g. CP10 = max. 10 minutes is necessary to obtain 90% of decontamination). This parameter characterises the efficiency of the air flow system in re-establishing an acceptable air cleanliness. It does not characterise a building material e.g. ceiling tile.

Indoor air quality

Rockfon is constantly working to provide products that contribute positively to the indoor environment.

Rockfon products cannot improve the quality of air coming into a building nor compensate for inadequate ventilation or maintenance. They will, however, contribute positively to the indoor environment, regardless of where they are installed.

Clean room classification

Particles emitted by building materials increase the risk of infection spreading in healthcare buildings.

Due to their low particle emission, MediCare products meet stringent requirements for air cleanliness. MediCare products are classified ISO Class 5 in accordance with ISO 14644-1, which corresponds to Class 100 of US Federal Standard 209E. The clean room classification of MediCare products fulfils the requirements of Zone 4 (very high-risk area) as defined in NF S 90351.



Low emissions

Rockfon products have been awarded the Danish Indoor Climate Label and (ICL) and the Finish Classification of Indoor Climate Label (M1), thereby going beyond any legal requirements ensuring low emissions of particles and substances to the indoor environment. Rockfon products are also certified by the Singapore Environmental Council for compliance with the Green Label requirements as well as awarded the Taiwan Green Building Material Label for health and for high performance respectively.

Bio-soluble stone wool

All Rockfon stone wool is certified bio-soluble and safe. This is verified through the European Certification Board for Mineral Wool products (EUCEB).



Clean room classifications		
FED STD 209D/209E	ISO 14644-1	
English	Metric	ISO Class
-	-	1
-	-	2
1	M1.5	3
10	M2.5	4
100	M3.5	5
1.000	M4.5	6
10.000	M5.5	7
100.000	M6.5	8
-	-	9

Fire safety

In certain areas of a hospital, evacuation in the event of a fire is almost impossible. Intensive care units, operating theatres and neonatal departments are obvious examples. Apart from the incalculable human factor, every hospital fire is an economical disaster, as they generally house very expensive equipment.

Fire prevention is therefore a key issue when designing hospitals. The use of noncombustible materials that are rated in Class A for reaction to fire in accordance with EN 13501-1 offers the best guarantee. They limit the spread of fire and reduce the risk of smoke and droplets. Fire resistance properties (the ability to reduce the spread of a fire) are also to be considered.

Only noncombustible materials can be classified as A-class materials. Most Rockfon products have been awarded the highest possible reaction to fire classification, Class A1, and all products from the MediCare range are classified A1.

Rockfon products meet the highest requirements on fire resistance in accordance with EN 13501-2.

Product	Fire reaction	Fire resistance
DESIGN WHITE		
Sonar	A1	EN13501-2, BS 476 Part 21, 22, 23
Tropic	A1	EN13501-2, BS 476 Part 21, 22, 23
Sonar dB 44	A2-s1,d0	EN13501-2, BS 476 Part 21, 22, 23
DESIGN DECORATION		
Sonar Luna	A1	EN13501-2, BS 476 Part 21, 22, 23
Ligna	A1	EN13501-2
Polar Colour	A1	EN13501-2, BS 476 Part 21, 22, 23
SPECIAL AREA		
<i>Healthcare</i>		
MediCare Standard	A1	EN13501-2, BS 476 Part 21, 22, 23
MediCare Plus	A1	EN13501-2, BS 476 Part 21, 22, 23
MediCare Air	A1	EN13501-2, BS 476 Part 21, 22, 23
<i>Impact Resistance</i>		
Boxer	A1	EN13501-2, BS 476 Part 21, 22, 23
Samson	A1	EN13501-2, BS 476 Part 21, 22, 23
OTHER		
<i>Wall Absorbers</i>		
VertiQ	A2-s1,d0	N/A
<i>Baffles</i>		
Rockfon Contour	A1	N/A
<i>Islands</i>		
Rockfon Eclipse	A1	N/A



The sustainable environment

The healthcare sector is at the forefront in the development of sustainable buildings.

The challenges for suppliers are immense. Rockfon fulfils these demands by constantly improving the environmental and social performance of its' products, whilst continuing to deliver durable, aesthetic and high-performance solutions.



Durability

Hospitals and healthcare facilities are continuously being renovated, adapted or extended. This creates a number of challenges:

- The chosen building products need to be available over longer periods of time. Building materials that regularly change their look and feel make it difficult for healthcare facilities to maintain visual homogeneity. Rockfon is continuously improving products whilst maintaining their appearance, allowing customers to mix and match new with existing products.
- Building materials should withstand harsh cleaning and disinfection, without losing their function. The MediCare surfaces withstand common cleaning and disinfecting methods used in healthcare.
- Ceilings need to be easy to take down allowing access to services hidden behind the ceiling void. This is particularly important in corridors. Rockfon products fulfil this requirement.

Rockfon delivers the most dimensionally-stable ceiling tiles withstanding extreme variations in both temperature and humidity. This is just one of the reasons why Rockfon offers a 15-year guarantee.



Stone wool – a natural raw material

Rockfon stone wool's primary raw materials are recycled materials and diabase rock (volcanic stone). These diabase stones are a natural resource found in abundance around the world.

Recycled materials

Rockfon products are 100% recyclable.

The Rockwool process is ideal for recycling, and almost all production wastes are recycled internally. At temperatures above 1500°C, organic residue is burnt off, providing valuable additional heat energy, saving on fossil fuel usage. Also, there is a constant effort to increase the use of residue materials from other industries. By investing in recycling facilities, the Rockwool Group is continuously reducing the amount of stone wool production waste going to landfill.

The maximum content of recycled material and renewable diabase rock in a finished Rockfon ceiling tile is 84%.

Return schemes

The Rockwool Group's return schemes (including the return of site waste and off-cuts) are now available in 60% of the operating companies. The Rockwool Group will continue to expand its recycling schemes to more countries where transportation and waste collection systems can be made eco-efficient.

Optimising the production process

Throughout the entire manufacturing process, the Rockwool Group makes concerted efforts to protect the environment. Each year, the Group measures 11 indicators that are used to assess the overall environmental performance. Results are published in Rockwool's environmental report, available at www.rockwool.com.

Environmental certification of buildings

Using Rockfon products can help achieve "green" building certificates. Whether seeking to certify a building through BREEAM (UK), HQE (France), DGNB (Germany), LEED (USA) or another system, using Rockfon acoustic products will help achieve these goals.

Social aspects

The leading shareholder of the Rockwool Group is the Rockwool Foundation. Established in 1981, the philanthropic involvement of the Rockwool Foundation within scientific analysis related to the current challenges faced by modern society emphasises that social responsibility is a central part of the Rockwool culture (www.rockwoolfonden.dk). The Rockwool foundation works within four primary programme areas:

- Food Security and Poverty Alleviation
- Social Capacity Building
- International Peace Building
- Health Interventions

London, England

Barts & The Royal London hospitals

Barts is Britain's oldest hospital, opened in 1123, while the Royal London Hospital dates back to 1740. These two historic hospitals are now undergoing a 10-year, £1 billion redevelopment, which is being undertaken by Skanska under one of the largest ever PPP projects in Europe. The scheme will see the redevelopment of many of the hospitals' ageing buildings with state-of-the-art healthcare facilities. The entire project is due for completion in early 2016, and Rockfon MediCare ceilings – which are specifically designed for healthcare applications – will be installed throughout both hospitals.

A crucial factor on this project was compliance with Skanska's environmental policy. Skanska is determined to be the leading green project developer and contractor in the UK, so they have some ambitious targets.

Nick Baker, Skanska's Environmental Manager, explains: *"The Skanska Colour Palette describes our Journey to Deep Green™. It identifies four key priorities: Energy, Carbon, Materials and Water. Our long term target is to have zero impact in each area. For Barts and The Royal London, we looked closely at our use of materials – in particular the target for Zero Waste to landfill. Manufacturer take-back schemes are an important factor in our ability to achieve this."*

Barts Hospital's city-centre location presents an especially difficult logistical challenge, compounded by the fact that the new building fills the entire footprint of the site. An off-site logistics depot is being used to consolidate materials from all suppliers and its use reduces the number of daily deliveries to the site. The logistics company also return certain material off-cuts from site to the depot, where they are stored prior to collection for recycling.

Rockfon is working closely with the ceiling contractor, Clark & Fenn Skanska, to ensure all ceiling waste and off-cuts from both sites are recycled, and segregation of waste on site is a key factor in achieving this. In conjunction with storing off-cuts at CCF Distribution in Croydon, fifteen pallets of off-cuts have been returned to the Rockwool factory in Pencoed (Wales) for recycling back into their production process.

"In the initial stages we believed that a metal tile would be far more practical as a solution for the corridors," comments Derek Bennett of Clark & Fenn Skanska. *"However, due to restrictions in void depth and the heavily-serviced corridors, Clark & Fenn Skanska – with assistance from the architects and Rockfon – developed a very cost-effective solution using Rockfon MediCare planks. This solution allowed Skanska to delay installing tiles until the commissioning stages. This reduced the actual damage that can occur on projects of this nature, thereby reducing any unnecessary waste."*

Rockfon's MediCare range has been specified in standard tile formats for the rooms and planks for the corridors. With over 13 miles of corridors to cover, it was essential the ceilings could provide ease of access and be easy to demount and install. The Rockfon MediCare range also offers resistance to ubiquitous bacteria and fungi, in particular Staphylococcus Aureus including its Methicillin resistant strain (MRSA), making it fully compliant with HTM 60 and an ideal choice for the new hospitals.

All MediCare tiles have smooth aesthetically pleasing surfaces, reinforced by a concealed mesh that provides enhanced impact resistance and durability. The MediCare range is easy to cut and handle and is available in sizes up to 2400 mm in length to span corridor widths. Installation in the RockLink FasTrac grid system saves time and grid components, while for corridors System MaxiSpan can be used to fasten the ceiling to the walls instead of the often congested soffit.

The first phase of works at Barts is already completed, providing one of the most advanced cancer centres in Europe. The second phase will house a Cardiac Centre of Excellence. The Royal London will include a leading trauma and emergency care centre, the capital's second largest children's hospital and one of Europe's largest renal units. The London Air Ambulance service will also operate from the top of the new building. The two hospitals will offer 1,248 patient beds with 40% in single occupancy, along with 30 operating theatres, the latest medical equipment and the most up-to-date diagnostic and treatment technology.





ROCKFON PRODUCTS ARE FULLY RECYCLABLE

Rockfon MediCare off-cuts from Barts and The Royal London hospital projects, some of the largest healthcare projects of recent times, were returned to our factory for recycling.

*"It doesn't need to go to landfill, you can send it to Rockfon – no age limit, no quantity limit...
no limits!"*

Entrance halls

Entrance halls are characterised by heavy streams of traffic – incoming patients, visitors and staff finding their way in and out of the hospital or healthcare facility. They need to be open and inviting. Therefore, concealed ceiling solutions and colour are important design parameters. Acoustic comfort, through the use of sound absorbing materials, is also a prerequisite to counteract the other hard surfaces.

ROCKFON RECOMMENDATIONS

Sonar, Sonar Activity, Tropic, Polar Colour, Ligna, Koral, MediCare Standard, MediCare Plus, VertiQ wall absorber, Rockfon Eclipse ceiling island



Deventer Hospital
Deventer NL



Institut Gustave Roussy
Villejuif FR



Registration, information areas and waiting rooms

Both visitors and patients can experience a range of emotions in hospital waiting rooms, from stress and uncertainty to joy and happiness. The right interior design can play an important role in calming any negative emotions. Waiting rooms are now designed similar to hotel lobbies, not impersonal, clinical cells.

An acoustic ceiling in a relaxing colour can be of great value in these areas.

ROCKFON RECOMMENDATIONS

Sonar, Sonar Activity, Tropic, Polar Colour, Ligna, Koral, MediCare Standard, MediCare Plus



UMCG University Medical Center
Groningen NL



Deventer Hospital
Deventer NL



Elderly Home "The Wild Rose"
Brussels BE

Corridors and stairwells

Corridors are noisy places – pushing beds between treatment rooms, distributing food, bringing patients to their rooms, children playing during visiting hours, etc. However, noise-related stress needs to be minimised.

In addition, many technical installations – HVAC, electricity, computer cables etc. – are often hidden above a suspended ceiling. This means that the requirements for a corridor ceiling are not limited to acoustic performance, but include easy demountability.

ROCKFON RECOMMENDATIONS

Sonar, Sonar Activity, Tropic, Koral, MediCare Standard, MediCare Plus, Boxer, Samson

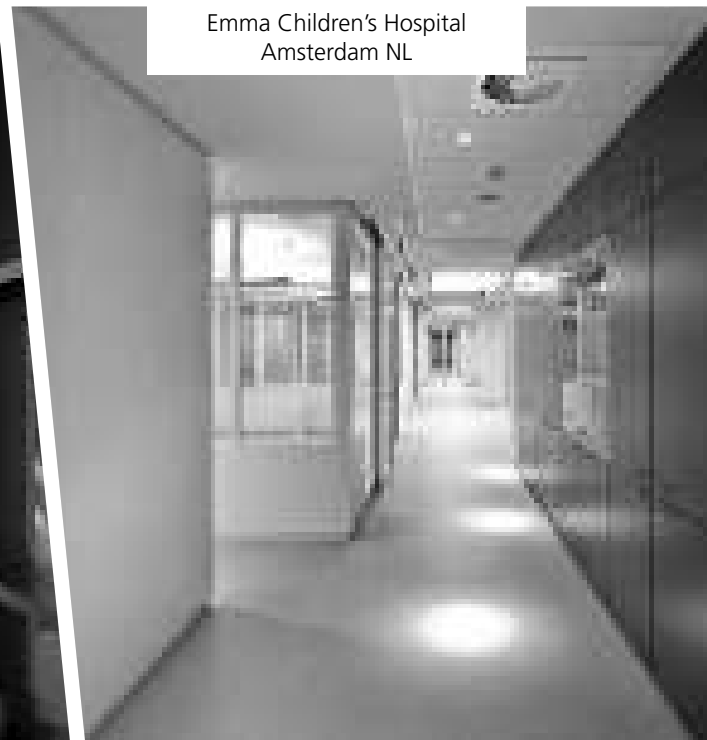


Virga Jesse Hospital
Hasselt BE

Royal Derby Hospital
Derby UK



Emma Children's Hospital
Amsterdam NL



Offices, consultation and examination rooms

Consultations or examinations can often be stressful and patients do not feel at ease. Stress can reinforce any discomfort during an examination. Noisy technical equipment can add to this stress. In post-examination or consultation rooms, it is equally important that the doctor and patient can discuss the outcome in a quiet and private environment.

Building materials should promote a healthy sound environment, both in terms of speech intelligibility and in preventing sound travelling from the doctor's office into adjacent rooms, ensuring privacy.

ROCKFON RECOMMENDATIONS

Sonar, Sonar Activity, Sonar dB, Tropic, Tropic dB, Koral, MediCare Standard, MediCare Plus, VertiQ wall absorber



Emma Children's Hospital
Amsterdam NL



Institut Gustave Roussy
Villejuif FR



Kings Mill Hospital
Nottingham UK

Emergency, treatment rooms and operating theatres

Functionality and hygiene are the main concerns in these spaces. Because they are easy to clean and maintain, many building techniques use glass, concrete and steel materials. These lead to high reverberation and need to be compensated for with sound-absorbent materials. Technical performance is very important here. In that respect, ceilings need to be best-in-class not only in terms of acoustics, fire and demountability, but also in cleanability and disinfection. Pressure difference between high-risk areas is often used to control airborne contamination. In pressurised areas, the use of airtight solutions is essential.

ROCKFON RECOMMENDATIONS

MediCare Plus, MediCare Air



Virga Jesse Hospital
Hasselt BE



Hospital St Joseph
Arlon BE



Radboud University Animal Lab
Nijmegen NL

Patient rooms and wards

The use of colour, assured air quality, optimum acoustic comfort and the right amount of light all play an important role in the healing process.

A patient's room is the most private yet most visited room of a hospital. The emotional experience that the patient has with the healthcare facility will be defined in this room.

ROCKFON RECOMMENDATIONS

Sonar, Sonar Activity, Polar Colour, Koral, MediCare Standard, MediCare Plus



Queen's Hospital
Romford UK

Kings Mill Hospital
Nottingham UK



Hospital St. Joseph
Arlon BE



Cafeteria and communal areas

Cafeterias and communal areas within a healthcare facility are typically where people come together to relax and be sociable. They need to provide a relatively calm and pleasant environment. Good acoustics and speech intelligibility are also of great importance.

Food preparation areas require special cleaning properties.

ROCKFON RECOMMENDATIONS

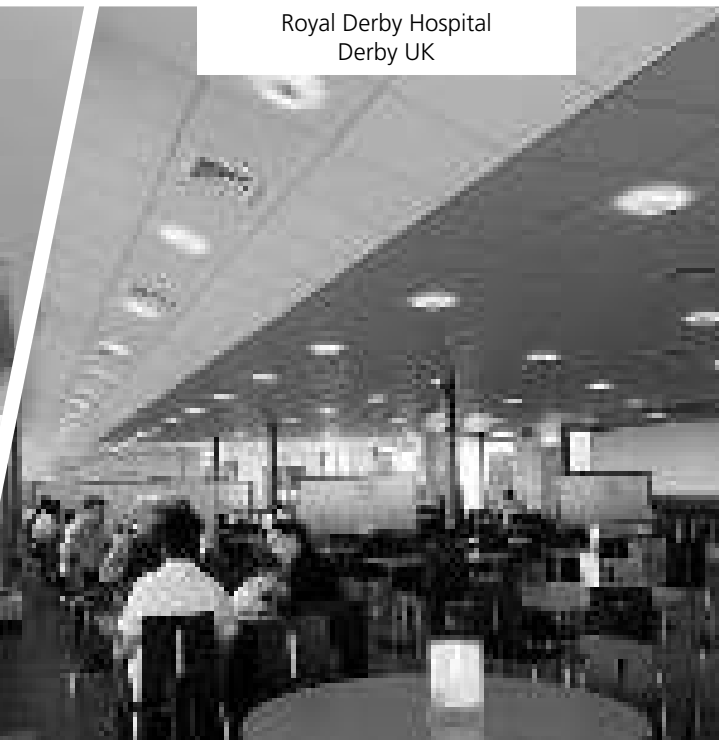
Sonar, Sonar Activity, Tropic, Polar Colour, Luna, Ligna, Koral, MediCare Standard, MediCare Plus, VertiQ wall absorber, Rockfon Contour baffles, Rockfon Eclipse ceiling island



UMCG University Medical Center
Groningen NL



Op Maat
Groningen NL



Royal Derby Hospital
Derby UK

Bathrooms and washing facilities

High-humidity areas require appropriate ceiling materials designed to withstand up to 100% relative humidity (RH) without any sagging or deterioration. All Rockfon products offer this performance.

ROCKFON RECOMMENDATIONS

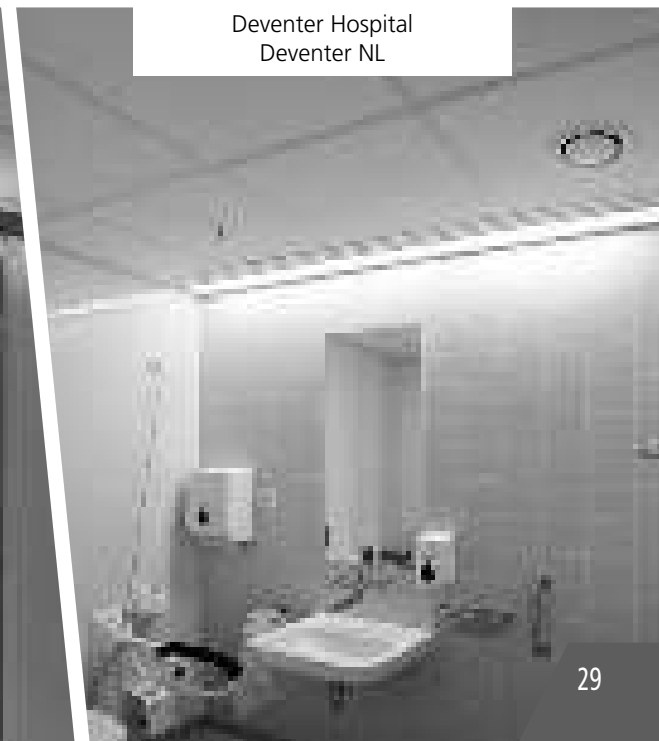
MediCare Plus



Darent Valley Hospital
Dartford UK



Stour Centre
Ashford UK



Deventer Hospital
Deventer NL

Product recommendations

	Entrance halls	Registration, information areas and waiting rooms	Corridors and stairwells	Offices, consultation and examination rooms	Emergency, treatment rooms and operating theatres	Patient rooms and wards	Cafeteria and communal areas	Bathrooms and washing facilities
DESIGN WHITE								
Sonar	•	•	•	•		•	•	
Sonar Activity	•	•	•	•		•	•	
Sonar dB				•				
Tropic	•	•	•	•			•	
Tropic dB				•				
DESIGN DECO								
Polar Colour	•	•				•	•	
Luna							•	
Ligna	•	•					•	
BASIC WHITE								
Koral	•	•	•	•		•	•	
SPECIAL AREA								
<i>Healthcare</i>								
Medicare Standard	•	•	•	•		•	•	
Medicare Plus	•	•	•	•	•	•	•	•
Medicare Air					•			
<i>Impact resistance</i>								
Boxer			•					
Samson			•					
OTHER								
<i>Wall absorbers</i>								
VertiQ	•			•			•	
<i>Baffles</i>								
Rockfon Contour							•	
<i>Islands</i>								
Rockfon Eclipse	•						•	



ACTIVATE YOUR CEILING

Rockfon® develop intelligent ceiling solutions which actively address a number of important issues in modern buildings and renovation projects.

Rockfon products are known for their design, aesthetics and ease of installation; coupled with the key performance features of superior fire resistance and acoustics.

This ensures that our ceiling solutions are among the highest performing, most cost effective and time efficient in today's interiors market.

The comprehensive ceiling solution portfolio from Rockfon ensures that our customers are able to actively add value to the construction process, by ultimately creating superior interior environments.

That is why we say "ACTIVATE YOUR CEILING".

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