








# Health sector

Application guide



Application Area	Hospital ward	Laboratory	
<b>Area description:</b>	<b>Main Purpose</b> To accommodate one to ten patients and provide a comfortable, calm and welcoming atmosphere.	<b>Main Purpose</b> To provide a safe working environment for laboratory work with or without noisy machines.	
	<b>Typical Size</b> Floor area: 15 - 100 m <sup>2</sup> Ceiling height: 2.5 - 3.5 m.	<b>Typical Size</b> Floor area: 20 - 200 m <sup>2</sup> Ceiling height: 2.4 - 3.5 m.	
<b>Recommended solution</b> (Datasheet no., product)	5.1.01 Sonar <sup>3)</sup> 5.1.04 Plano <sup>3)</sup> 5.1.05 Dekor <sup>3)</sup> 5.2.01 Koral <sup>3)</sup> 5.3.09 Boxer <sup>3)</sup> (Good impact resistance)	5.1.01 Sonar <sup>*) 3)</sup> 5.1.04 Plano <sup>3)</sup> 5.1.05 Dekor <sup>3)</sup> 5.2.01 Koral <sup>3)</sup> 5.3.01 Hygienic Plus <sup>*) 3)</sup>	
<b>Can be used with the following floor type:</b> 1) Carpet 2) Parquet 3) Stone / linoleum		*) Sonar and Hygienic Plus are both classified in Class M2.5/10 according to US Federal Standard 209E, and therefore well suited for controlled air environments.	
<b>Guideline: Ceiling and room requirements/ recommendations</b>	 <b>Acoustics</b> <p>The recommended reverberation times for each application relate to the largest typical room sizes. As reverberation time is volume dependent, for smaller rooms, the reverberation time should normally be lower than the maximum value recommended. For additional advice, please contact Rockfon.</p>	<b>Reverberation time:</b> $0.6 \pm 0.2$ sec between 125 - 4000 Hz. (HTM 2045)  <b>Rockfon recommendation:</b> <b>Reverberation time:</b> < 0.8 sec between 250 -4000 Hz. <b>Sound absorption:</b> $\alpha_p \geq 0.6$ between 250 - 4000 Hz.	<b>Reverberation time:</b> $0.6 \pm 0.2$ sec between 125 - 4000 Hz. (HTM 2045)  <b>Rockfon recommendation:</b> <b>Reverberation time:</b> < 0.8 sec between 250 -4000 Hz. <b>Sound absorption:</b> $\alpha_p \geq 0.6$ between 250 - 4000 Hz.
	 <b>Fire performance</b>	<i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.	<i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.
	 <b>Humidity resistance</b>	> 90% Relative Humidity at 40°C. Non hygroscopic.	> 95% Relative Humidity at 40°C. Non hygroscopic.
	 <b>Hygiene</b>	Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.	Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface. Clean room Class M2.5/10. US FS 209E depending on specific application.
	 <b>Cleaning</b>	<i>Clean 4 times a year by hand with a wet mop or cloth (HTM 60).</i>  <b>Rockfon recommendation:</b> Wet wipe: Twice per year.	<i>Clean 4 times a year by hand with a wet mop or cloth. (HTM 60)</i>  <b>Rockfon recommendation:</b> Wet wipe: Once per year.
	 <b>Lighting</b>	<i>Diffuse light reflection: <math>\geq 80\%</math>.</i> <i>Overall Lux level 100 Lux. (CIBSE Code for interior lighting).</i> Low glare, easily cleanable lighting. As much natural light as possible.	<i>Diffuse light reflection: <math>\geq 80\%</math>.</i> <i>Overall Lux level 300 - 500 Lux. (CIBSE Code for interior lighting).</i> Low glare, easily cleanable lighting.
	 <b>Demounting</b>	Occasional access to service installations required. <i>Building elements that require frequent redecoration or which are difficult to service or clean should be avoided. (HBN 04)</i>	Occasional access to service installations required.

Operation theatre	Consulting room	Corridor
<p><b>Main Purpose</b> To ensure a clinical working environment for up to 10 persons.</p> <p><b>Typical Size</b> Floor area: 25 - 100 m<sup>2</sup> Ceiling height: 3.0 - 4.0 m.</p>	<p><b>Main Purpose</b> To provide privacy and adequate communication conditions for 2 to 5 persons.</p> <p><b>Typical Size</b> Floor area: 10 - 40 m<sup>2</sup> Ceiling height 2.4 - 3.0 m.</p>	<p><b>Main Purpose</b> To provide a fire safe, acoustically comfortable and easy to use circulation area.</p> <p><b>Typical Size</b> Floor area: 10 - 250 m<sup>2</sup> Ceiling height 2.4 - 3.0 m</p>
<p>5.3.01 Hygienic Plus <sup>3)</sup></p> <p>(Hygienic Plus is classified in Class M2.5/10 according to US Federal Standard 209E, and therefore well suited for controlled air environments). The area can be pressurised relative to surroundings, however, the ceiling is not intended to act as an air tight membrane.</p>	<p>5.1.01 Sonar <sup>3)</sup> 5.1.04 Plano <sup>3)</sup> 5.1.05 Dekor <sup>3)</sup> 5.2.01 Koral <sup>3)</sup> 5.3.10 Silence <sup>*) **)</sup></p> <p>*) Can be used for extra high sound insulation when using demountable partitions. **) 34, 36, 38, 42, 43 and 44</p>	<p>5.1.01 Sonar <sup>3)</sup> (Option: Corridor modules) 5.1.04 Plano <sup>3)</sup> 5.1.05 Dekor <sup>3)</sup> 5.2.01 Koral <sup>3)</sup> (Option: Corridor modules) 5.3.09 Boxer <sup>3)</sup> (Good impact resistance) (Option: Corridor modules)</p>
<p><b>Reverberation time:</b> <math>0.6 \pm 0.2</math> sec between 125 - 4000 Hz. (HTM 2045)</p> <p><b>Rockfon recommendation:</b> <b>Reverberation time:</b> &lt; 0.8 sec between 250 - 4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.7</math> between 250 - 4000 Hz.</p> <p><b>Speech intelligibility:</b> Good.</p>	<p><b>Reverberation time:</b> <math>0.65 \pm 0.15</math> sec between 125 - 4000 Hz. (HTM 2045)</p> <p><b>Rockfon recommendation:</b> <b>Reverberation time:</b> &lt; 0.6 sec between 250 - 4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> between 250 - 4000 Hz. <b>Sound insulation:</b> <math>R_w \geq 50</math> dB "room to room" airborne sound insulation.</p>	<p><b>Reverberation time:</b> &lt; 0.7 sec between 250 - 4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> between 250 - 4000 Hz.</p>
<p><i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>	<p><i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>	<p><i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>
<p>&gt; 95% Relative Humidity at 40°C. Non hygroscopic.</p>	<p>&gt; 90% Relative Humidity at 40°C. Non hygroscopic.</p>	<p>&gt; 90% Relative Humidity at 40°C. Non hygroscopic.</p>
<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Cleanroom Class M2.5/10. US FS 209E Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed edge and back surface.</p>	<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>	<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>
<p><i>Clean daily by hand with a wet mop or cloth or water spraying and suction (HTM 60)</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Four times per year.</p>	<p><i>Clean 4 times a year by hand with a wet mop or cloth (HTM60).</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Once per year.</p>	<p><i>Clean 4 times a year by hand with a wet mop or cloth (HTM 60).</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Once per year.</p>
<p><i>Diffuse light reflection: <math>\geq 80\%</math>. Overall Lux level 400 - 500 Lux. (CIBSE Code for interior lighting).</i> Special operation luminaires, low glare, easily cleanable lighting.</p>	<p><i>Diffuse light reflection: <math>\geq 80\%</math>. Overall Lux level 100 Lux. (CIBSE Code for interior lighting).</i> Low glare, easily cleaned lighting.</p>	<p><i>Diffuse light reflection: <math>\geq 80\%</math>. Overall Lux level 100 Lux. (CIBSE Code for interior lighting).</i> Low glare, easily cleaned lighting.</p>
<p>Normally no access to service installations required. Do not rely on traditional suspended ceiling to provide a fully air tight membrane. Installations in ceiling should be minimised.</p>	<p>Occasional access to service installations required.</p>	<p>Regular access to service installations required. Easily cleaned after handling during maintenance.</p>

Toilet / wet room	Cafeteria / Restaurant	Kitchen
<p><b>Main Purpose</b> To provide maximum privacy and to hide services.</p> <p><b>Typical Size</b> Floor area: 1 - 25 m<sup>2</sup> Ceiling height 2.4 - 3.5 m.</p>	<p><b>Main Purpose</b> To provide a relaxed and interesting atmosphere for up to 150 persons.</p> <p><b>Typical Size</b> Floor area: 50 - 300 m<sup>2</sup> Ceiling height 2.4 - 3.5 m.</p>	<p><b>Main Purpose</b> To provide an optimal hygienic and acoustic environment.</p> <p><b>Typical Size</b> Floor area: 20 - 350 m<sup>2</sup> Ceiling height 2.4 - 3.5 m.</p>
<p>5.1.04 Plano <sup>3)</sup> 5.1.05 Dekor <sup>3)</sup> 5.2.01 Korál <sup>3)</sup></p> <p>Use enhanced corrosion resistant (ECR) Rockfon RockLink grid in case of constant high humidity in the room.</p>	<p>5.1.01 Sonar <sup>3)</sup> (Option: Big modules) 5.1.04 Plano <sup>3)</sup> 5.1.05 Dekor <sup>3)</sup> 5.2.01 Korál <sup>3)</sup> (Option: Big modules)</p>	<p>5.3.01 Hygienic <sup>3)</sup></p> <p>(Solution incorporating silicone sealant and enhanced corrosion resistant (ECR) Rockfon RockLink grid is advised if frequent cleaning is required)</p>
<p><b>Reverberation time:</b> &lt; 0.7 sec between 250 -4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> between 250 - 4000 Hz.</p>	<p><b>Reverberation time:</b> <math>0.6 \pm 0.2</math> sec between 125 - 4000 Hz. (HTM 2045)</p> <p><b>Rockfon recommendation:</b> <b>Reverberation time:</b> &lt; 0.7 sec between 250 - 4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> between 250 - 4000 Hz.</p>	<p><b>Reverberation time:</b> <math>0.6 \pm 0.2</math> sec between 125 - 4000 Hz. (HTM 2045)</p> <p><b>Rockfon recommendation:</b> <b>Reverberation time:</b> &lt; 0.7 sec between 250 -4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.7</math> between 250 - 4000 Hz.</p>
<p><i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>	<p><i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>	<p><i>Class 0 material (Building Regulations)</i> <i>30 minutes fire resistance (HTM 60)</i> Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>
<p>&gt; 95% Relative Humidity at 40°C. Non hygroscopic.</p>	<p>&gt; 90% Relative Humidity at 40°C. Non hygroscopic.</p>	<p>&gt; 95% Relative Humidity at 40°C. Non hygroscopic.</p>
<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>	<p>Easily cleaned, smooth unbroken surface. must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>	<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>
<p><i>Clean quarterly by hand with a wet mop or cloth. (HTM 60)</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Once per year.</p>	<p><i>Clean annually using industrial suction machine. (HTM 60)</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Twice per year.</p>	<p><i>Clean 4 times a year by hand with a wet mop or cloth (HTM 60).</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Four times per year.</p>
<p><i>Diffuse light reflection: <math>\geq 80\%</math>. Overall Lux level 100 Lux. (CIBSE Code for interior lighting).</i> Low glare, easily cleanable lighting, suitable for damp and humid conditions.</p>	<p><i>Diffuse light reflection: <math>\geq 80\%</math>. Overall Lux level 200 Lux. (CIBSE Code for interior lighting).</i> Easily cleaned lighting.</p>	<p><i>Diffuse light reflection: <math>\geq 80\%</math>. Overall Lux level 300 Lux. (CIBSE Code for interior lighting).</i> Low glare, easily cleanable lighting with IP55 rating.</p>
<p>Occasional access to service installations required.</p>	<p>Occasional access to service installations required.</p>	<p>Occasional access to service installations required. Easily cleaned after handling during maintenance.</p>

Meeting room	Reception	Lecture theatre
<p><b>Main Purpose</b> To provide privacy and adequate communication conditions for 2 to 25 persons.</p> <p><b>Typical Size</b> Floor area: 15 - 50 m<sup>2</sup> Ceiling height 2.4 - 3.0 m.</p>	<p><b>Main Purpose</b> To provide an inviting and interesting area with ambience.</p> <p><b>Typical Size</b> Floor area: 20 - 150 m<sup>2</sup> Ceiling height 2.4 - 5.0 m.</p>	<p><b>Main Purpose</b> To hold meetings and conferences for up to 150 persons.</p> <p><b>Typical Size</b> Floor area: up to 500 m<sup>2</sup> Ceiling height: min 3.0 - 6.0 m.</p>
<p>5.1.01 Sonar <sup>2</sup> <sup>3</sup>) (Option: Big modules) 5.1.04 Plano <sup>2</sup>) 5.1.05 Dekor <sup>2</sup>) 5.2.01 Koral <sup>2</sup> <sup>3</sup>) (Option: Big modules) 5.3.10 Silence <sup>*</sup> <sup>**</sup>) <sup>2</sup> <sup>3</sup>)</p> <p><small>*) Can be used for extra high sound insulation when using demountable partitions. **) 34, 36, 38, 42, 43 and 44</small></p>	<p>5.1.01 Sonar <sup>3</sup>) (Option: Big modules) 5.1.04 Plano <sup>3</sup>) 5.1.05 Dekor <sup>3</sup>) 5.2.01 Koral <sup>3</sup>) (Option: Big modules)</p>	<p><b>Without loudspeakers:</b> 5.1.01 Sonar <sup>*</sup>) <sup>2</sup>) <sup>3</sup>) (Big modules) 5.2.01 Koral <sup>*</sup>) <sup>2</sup>) <sup>3</sup>) (Big modules) <b>With loudspeakers:</b> 5.1.01 Sonar <sup>2</sup>) <sup>3</sup>) (Option: Big modules) 5.1.04 Plano <sup>2</sup>) 5.1.05 Dekor <sup>2</sup>) 5.2.01 Koral <sup>2</sup>) <sup>3</sup>) (Option: Big modules) 5.2.02 Polar <sup>2</sup>) <sup>3</sup>)</p> <p><small>*) Alto and Tenor options are available for use with standard Sonar and Koral.</small></p>
<p><b>Reverberation time:</b> 0.65 ± 0.15 sec between 125 - 4000 Hz. (HTM 2045)</p> <p><b>Rockfon recommendation:</b> <b>Reverberation time:</b> &lt; 0.6 sec between 250 -4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> between 250 - 4000 Hz. <b>Sound insulation:</b> <math>R_w \geq 35</math> dB "room to room" airborne sound insulation.</p> <p><b>Speech intelligibility:</b> Good.</p>	<p><b>Reverberation time:</b> &lt; 1.0 sec between 250 -4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> between 250 - 4000 Hz.</p>	<p><b>Without loudspeakers:</b> <b>Reverberation time:</b> 0.8 - 1.1 sec between 250 - 4000Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> covering approx 90% of ceiling area. Remaining ceiling <math>\alpha_p \leq 0.55</math> between 1000 - 4000 Hz covering approx 10% of ceiling area above the front section of audience. Use high sound absorbing material on back wall. <b>Sound absorption:</b> <math>\alpha_p \geq 0.6</math> between 250 - 4000 Hz. <b>Speech intelligibility:</b> Good.</p> <p><b>With loudspeakers:</b> <b>Reverberation time:</b>&lt; 0.5 sec between 250 -4000 Hz. <b>Sound absorption:</b> <math>\alpha_p \geq 0.7</math> between 250 - 4000 Hz. <b>Speech intelligibility:</b> Good.</p> <p>Due to the specialist nature of this room type, please contact Rockfon for additional advice.</p>
<p><i>Class 0 material (Building Regulations)</i> 30 minutes fire resistance (HTM 60) Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>	<p><i>Class 0 material (Building Regulations)</i> 30 minutes fire resistance (HTM 60) Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>	<p><i>Class 0 material (Building Regulations)</i> 30 minutes fire resistance (HTM 60) Made from materials capable of providing 30 min. fire resistance. (BS 476) Low smoke and toxic emission.</p>
<p>&gt; 90% Relative Humidity at 40°C. Non hygroscopic.</p>	<p>&gt; 90% Relative Humidity at 40°C. Non hygroscopic.</p>	<p>&gt; 90% Relative Humidity at 40°C. Non hygroscopic.</p>
<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>	<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>	<p>Easily cleaned, smooth unbroken surface. Must not allow growth of fungi and bacteria; specifically staphylococcus aureus. Must fulfil class "10 days" for gas emission and "Low" for particle emission. (The Indoor Climate Label) Fully sealed tile edges and back surface.</p>
<p><i>Clean 4 times a year by hand with a wet mop or cloth (HTM 60).</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Once per year.</p>	<p><i>Clean annually using industrial suction machine. (HTM 60)</i></p> <p><b>Rockfon recommendation:</b> Wet wipe: Once per year.</p>	<p>Vacuum clean: Once per year.</p>
<p><i>Diffuse light reflection: ≥ 80%. Overall Lux level 300 Lux. Up to 500 Lux on whiteboard (CIBSE Code for interior lighting). Low glare, easily cleanable lighting</i></p>	<p><i>Diffuse light reflection: ≥ 80%. Overall Lux level 200 Lux. Up to 500 Lux at enquiry desk. (CIBSE Code for interior lighting). Low glare, easily cleanable lighting. As much natural light as possible.</i></p>	<p><i>Diffuse light reflection: ≥ 80%. Overall Lux level 300 Lux. Up to 500 Lux on blackboard/whiteboard (CIBSE Code for interior lighting). Low glare lighting.</i></p>
<p>Occasional access to service installations required.</p>	<p>Occasional access to service installations required.</p>	<p>Normally no access to service installations required.</p>

# Application guide *Health Sector*

When designing ceilings for the health sector many different criteria have to be considered. Aesthetically pleasing surroundings, a good acoustic environment, natural lighting, fire safety and high levels of cleanliness and hygiene are just some of the key factors which affect the indoor environment and the comfort and safety of staff, patients and visitors.

A common factor for all areas within the health sector is the need to create an acceptable level of hygiene. This places high demands on interior finishes to be durable, easily cleaned and resistant to ubiquitous bacteria and fungi, in particular staphylococcus aureus, as well as being stable and non particle shedding. Creating the right internal room acoustic environment specifically regarding reverberation time is important to create a calm atmosphere which promotes speedy recuperation and rehabilitation. Typical requirements for a hospital ward would be to achieve a reverberation time of 0.6 seconds between 250 - 4000 Hz and to use a ceiling with a practical sound absorption coefficient  $\alpha_p \geq 0.6$  in the same frequency range.

The use of highly efficient sound absorbing ceilings in the frequency range 250 - 4000 Hz in the highly used corridors and "streets" has a beneficial effect on reducing the sounds of voices, and those created by footsteps and trolleys on the typically hard wearing floor finishes. This provides an acoustically comfortable "feel", whilst also reducing reflected sound, thereby contributing to privacy between adjoining areas.

As healthcare buildings typically accommodate large numbers of people of varying degrees of mobility, this creates a need for high fire safety throughout the building. Truly fire safe ceiling solutions which remain stable in the event of fire can have a great influence on the effectiveness of escape routes and the ease with which fire fighters can enter and save buildings on fire. This can have a very beneficial affect on life safety and on reducing the cost of building fire damage and the time health care buildings are non-operational. To contribute to fire safety, it is recommended to construct ceilings from materials that are capable of providing at least 30 minutes fire resistance in accordance with BS 476.

Due to the typically high occupancy and long daily usage, combined with the continued focus by health trusts and authorities on the need for ever increasing building lifespan, this places focus on the durability and longevity of building materials. Ceiling materials that are durable and dimensionally stable and can be used in areas which are subjected to variations in temperature and relative humidity are ideally suited to assisting with achieving this goal. This will also ensure that the appearance and longevity of this important internal finish remains unchanged. To achieve this goal, ceilings that are non hygroscopic and remain dimensionally stable in environments up to 100% relative humidity at 40°C are the most appropriate option.

In general, good lighting conditions with the correct lux level and low glare, combined with as much natural light as possible is desirable for convalescence. To maximise lighting performance and internal lighting conditions, ceilings should have a light coloured matt surface with a diffuse light reflection exceeding 80%.



## Sound Absorption

Ceilings made from stone wool (resin bonded mineral wool) are porous absorbers, which absorb sound and reduce reverberation time.



## Humidity Resistance

Rockfon ceilings are non hygroscopic and can withstand up to 100% relative humidity at 40°C.



## Dimensional Stability

Rockfon ceilings are 100% dimensionally stable even when exposed to extremes of moisture, heat and cold.



## Fire Performance

Stone wool does not burn and can withstand more than 1000°C for longer than 120 minutes without melting.



## Hygiene

Stone wool is an inorganic material and so is not attacked by rot, fungus or bacteria.



## Impact Resistance

Samson has passed the ball game mechanical impact test in accordance with DIN 18032 Part 3.



## Cleaning

The surfaces are easily cleaned by vacuum cleaning or wet cloth according to instructions.



## Light Reflection

Due to the high light reflection values of Rockfon products, light is diffused in an optimum way.

# Application guide *Health Sector*

In this application guide you can find a number of the most common application areas within the health sector.

Hospital ward  
Laboratory  
Operation theatre  
Consulting room  
Corridor  
Toilet / wet room  
Cafeteria / restaurant  
Kitchen  
Meeting room  
Reception  
Lecture theatre

The guide makes reference to requirements which are applicable to ceilings to ensure that they contribute to the creation of a pleasant indoor environment. In the guide, actual laws and national recommendations are printed in italics. Other text is Rockfon recommendations.

The guide quotes the following:

## **Area description**

Includes the main purpose of the room and typical room sizes.

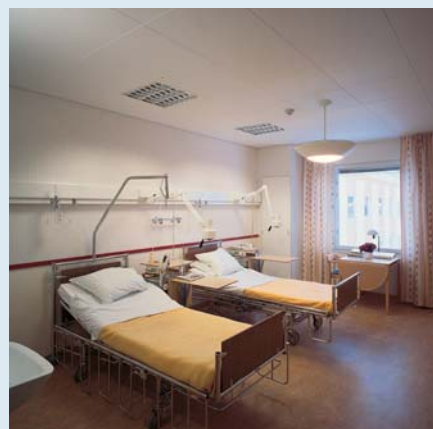
## **Recommended solution**

Includes recommended Rockfon solutions that contribute or ensure that the listed requirements are met, as well as listing the relevant data sheet number. For acoustic purposes, the solution also includes a variety of floor types with which the specific ceiling solution is compatible with. Where appropriate, suggestions for module sizes are also quoted. Where more than one solution is recommended per application area, your selection should be based on aesthetic requirements, floor type and the specific application. The recommended solutions represent the most suitable solutions within the Rockfon product assortment.

Other solutions may be suitable, please contact Rockfon for additional information if required.

## **Guideline: Ceiling and room requirements / recommendations**

Includes the most important ceiling design and room performance criteria.



# 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 amongst 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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### Environment

Rockfon products are primarily based on natural materials – stone, chalk and clay. They are produced in an environmentally friendly process and can be recycled.

Rockfon ceiling tiles are manufactured from stone wool (resin bonded mineral wool) which fulfils the EU directive 97/69 note Q.

### The Indoor Climate Label

Rockfon products have obtained Class 10 emission time for gas emission and "low particle emission" classification, the best classes according to The Indoor Climate Label standard.



### Service

Rockfon has many years of experience in ceiling design and acoustic regulation. We are happy to place our knowledge at your disposal – by documentation and personal service, from the planning stage to the finished building.

**ROCKWOOL**  
**Rockfon**<sup>®</sup>  
ACTIVATE YOUR CEILING