

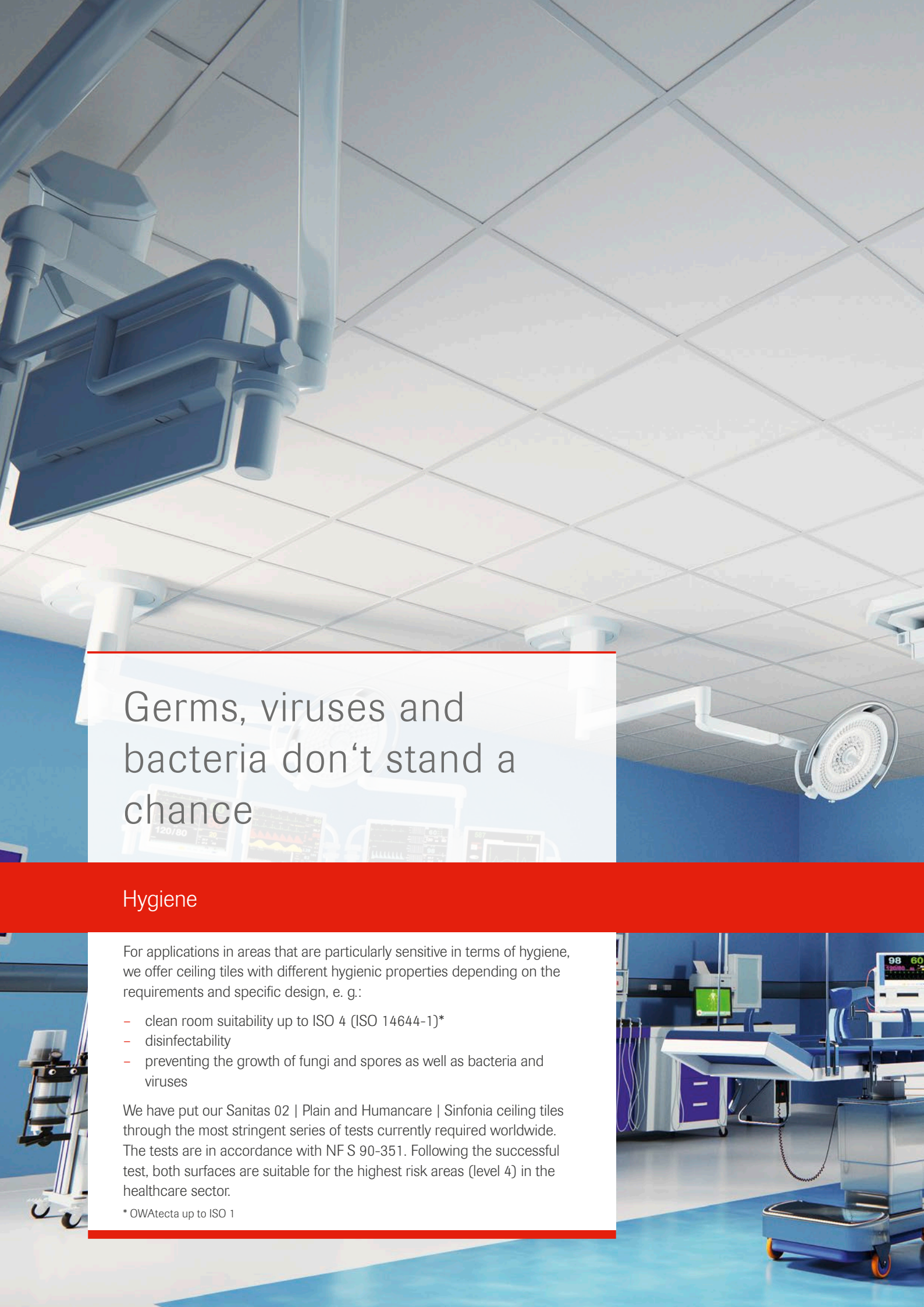
Ceilings for hygiene areas, clean rooms and high humidity areas



Ceiling systems for the
highest demands

OWAlifetime collection

OWA



Germs, viruses and bacteria don't stand a chance

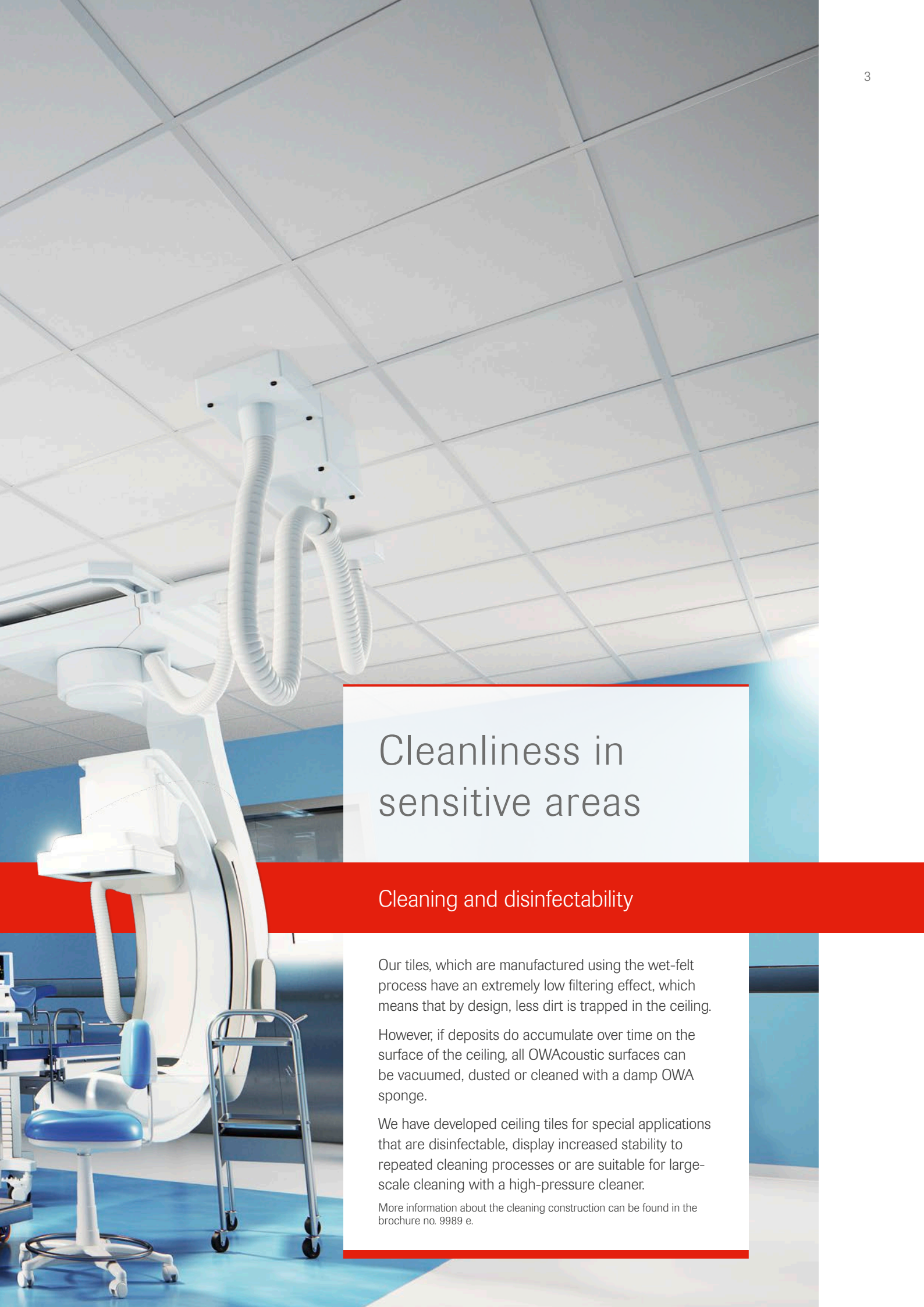
Hygiene

For applications in areas that are particularly sensitive in terms of hygiene, we offer ceiling tiles with different hygienic properties depending on the requirements and specific design, e. g.:

- clean room suitability up to ISO 4 (ISO 14644-1)*
- disinfectability
- preventing the growth of fungi and spores as well as bacteria and viruses

We have put our Sanitas 02 | Plain and Humancare | Sinfonia ceiling tiles through the most stringent series of tests currently required worldwide. The tests are in accordance with NFS 90-351. Following the successful test, both surfaces are suitable for the highest risk areas (level 4) in the healthcare sector.

*OWAtecta up to ISO 1



Cleanliness in sensitive areas

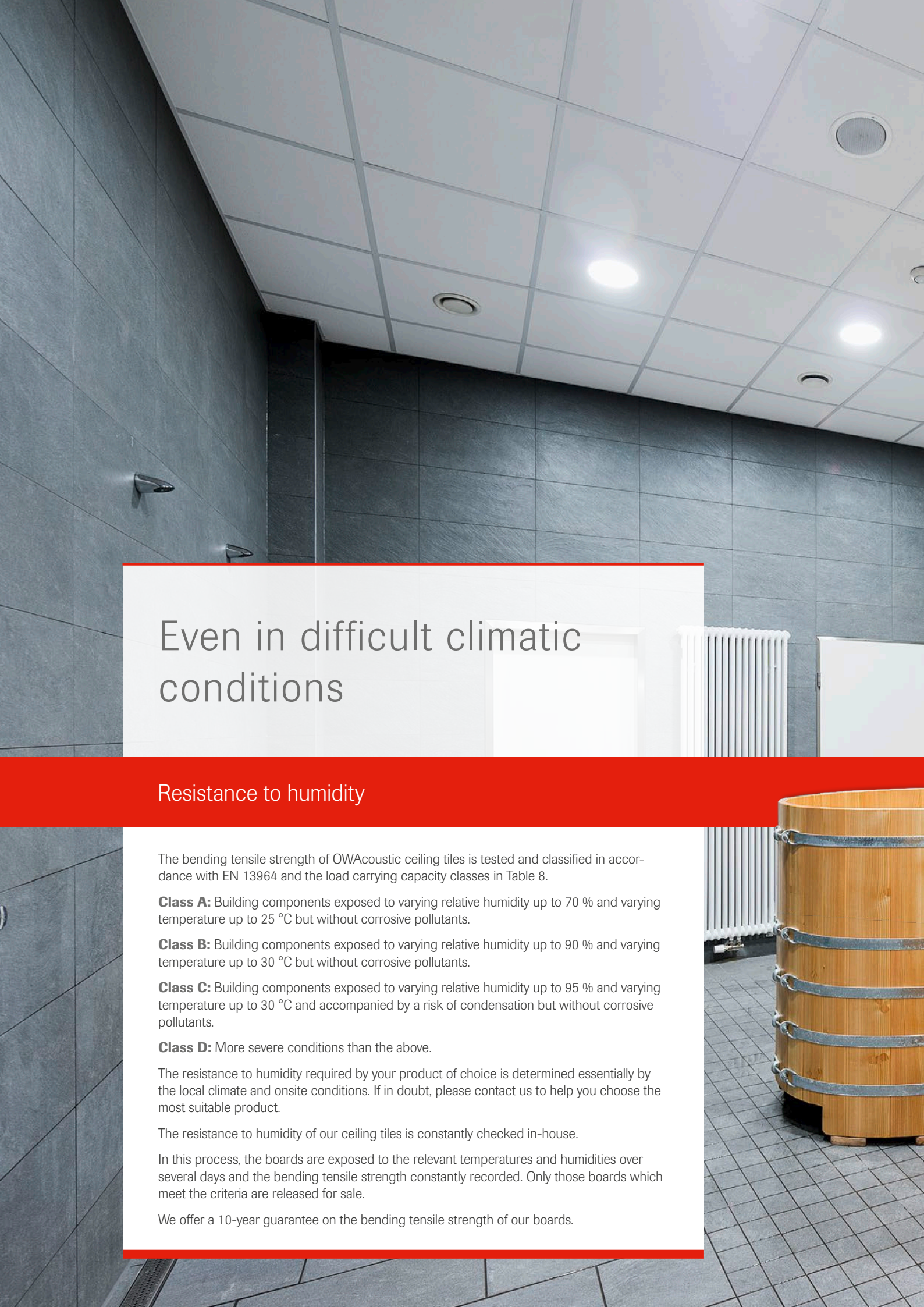
Cleaning and disinfectability

Our tiles, which are manufactured using the wet-felt process have an extremely low filtering effect, which means that by design, less dirt is trapped in the ceiling.

However, if deposits do accumulate over time on the surface of the ceiling, all OWAcooustic surfaces can be vacuumed, dusted or cleaned with a damp OWA sponge.

We have developed ceiling tiles for special applications that are disinfectable, display increased stability to repeated cleaning processes or are suitable for large-scale cleaning with a high-pressure cleaner.

More information about the cleaning construction can be found in the brochure no. 9989 e.



Even in difficult climatic conditions

Resistance to humidity

The bending tensile strength of OWAcooustic ceiling tiles is tested and classified in accordance with EN 13964 and the load carrying capacity classes in Table 8.

Class A: Building components exposed to varying relative humidity up to 70 % and varying temperature up to 25 °C but without corrosive pollutants.

Class B: Building components exposed to varying relative humidity up to 90 % and varying temperature up to 30 °C but without corrosive pollutants.

Class C: Building components exposed to varying relative humidity up to 95 % and varying temperature up to 30 °C and accompanied by a risk of condensation but without corrosive pollutants.

Class D: More severe conditions than the above.

The resistance to humidity required by your product of choice is determined essentially by the local climate and onsite conditions. If in doubt, please contact us to help you choose the most suitable product.

The resistance to humidity of our ceiling tiles is constantly checked in-house.

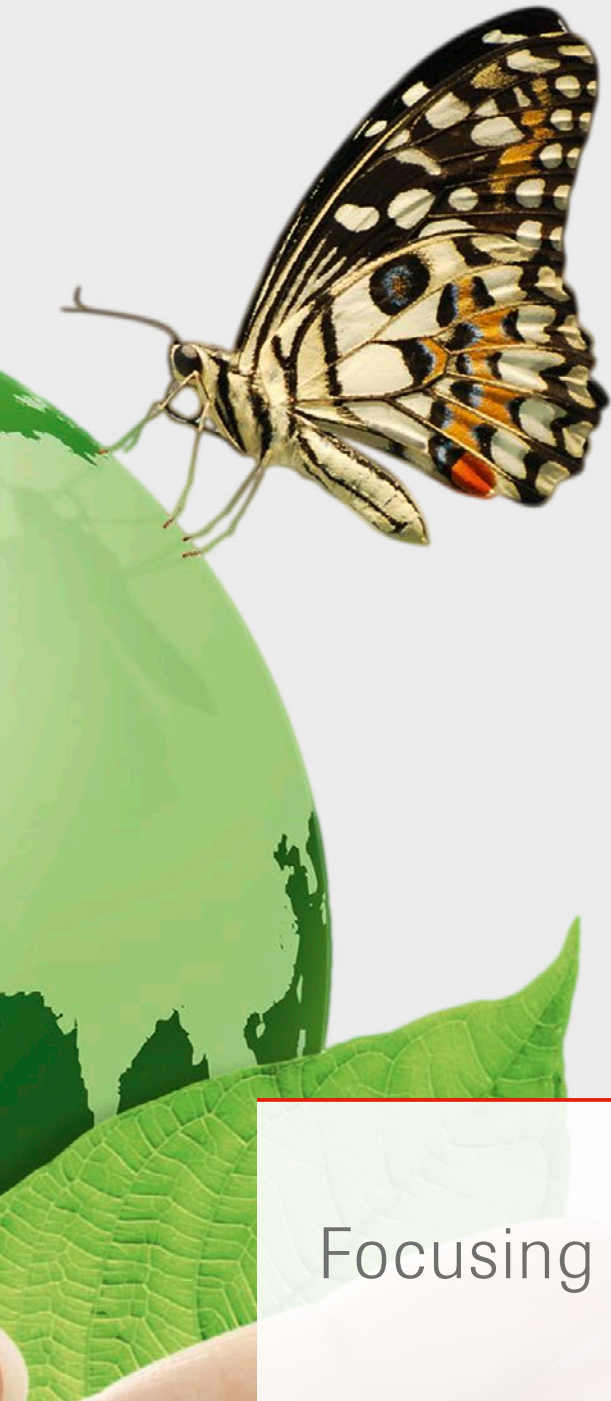
In this process, the boards are exposed to the relevant temperatures and humidities over several days and the bending tensile strength constantly recorded. Only those boards which meet the criteria are released for sale.

We offer a 10-year guarantee on the bending tensile strength of our boards.









Focusing on the future

Sustainability and recyclability

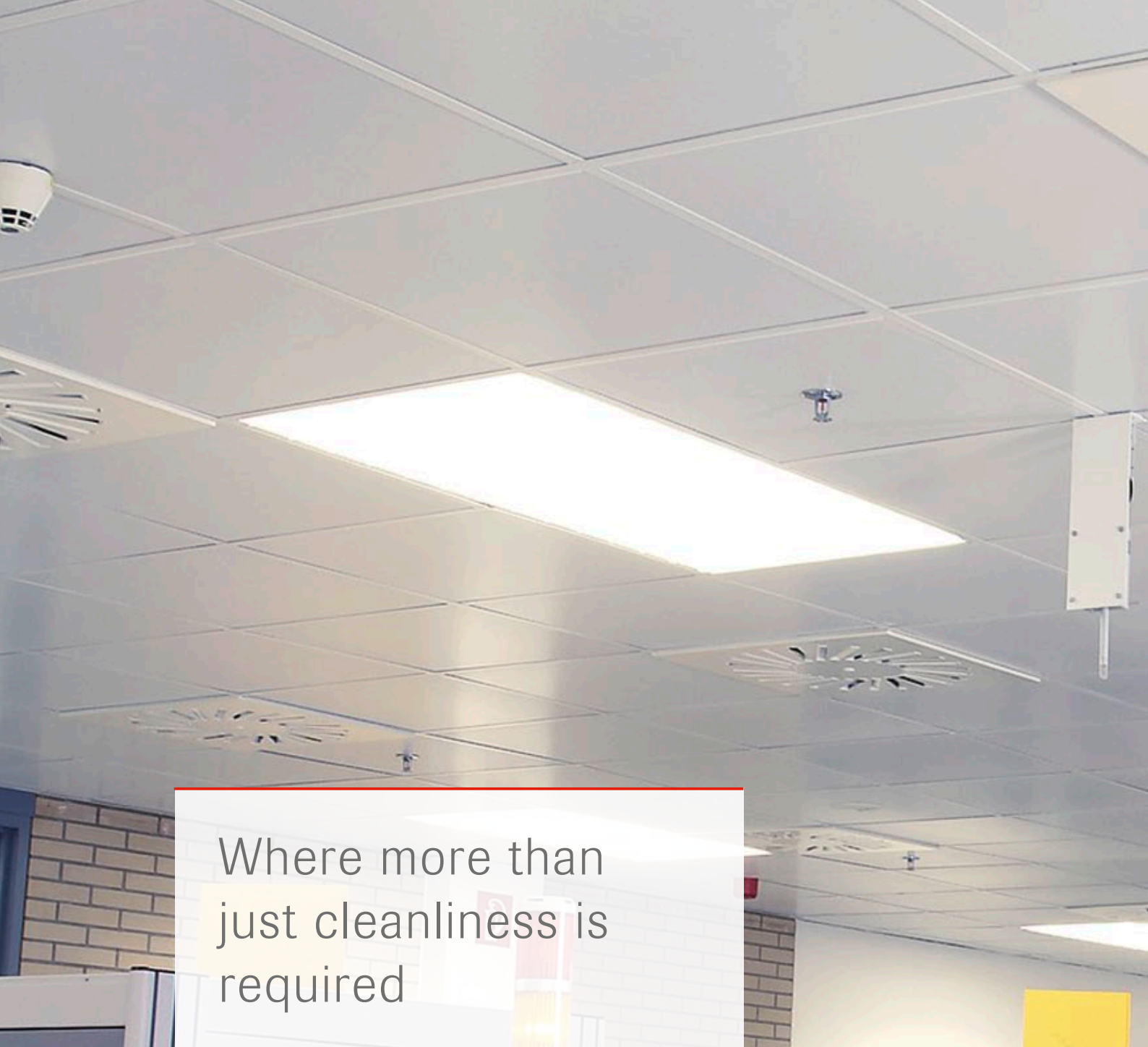
OWA ceiling tiles are made of a biodegradable mixture, which is produced from natural sources and recycled materials in varying proportions:

- biodegradable mineral wool 30 % – 60 %
- organic binding agent 5 % – 10 %
- solvent-free emulsions 0 % – 5 %
- natural fillers (clay and perlite) 20 % – 40 %
- recycled cellulose 0 % – 2 %

Sustainable production means designing the entire supply chain in accordance with ecological criteria. This is the basis of how we choose who is allowed to supply us with raw materials, energy and consumables.

All OWA ceiling tiles manufactured after 01-10-1997 are 100 % recyclable. These can be fed into the OWA green circle, our own recycling system, regardless of a new order.

For more information about the environment and sustainability, please visit our website at <https://www.owa.de/en/company/environment-recycling/> or read our brochure DS 9100 e Company – Products – Services.



Where more than just cleanliness is required

Air purity in clean rooms

Our ceilings for hygiene areas and clean rooms meet six of the nine classes that are defined in the maximum limits specified in EN ISO 14644-1 (ISO classes 4 – 9)*. This means that these ceiling systems are qualified for many clean room areas.

All the products listed here are high-quality wet-felt products whose components are firmly bound together. For this reason, additional edge sealing is not necessary.

Your Benefit: no special additional measures need to be carried out on site when tiles are cut, i.e. edge sealing.

* OWAteca up to ISO 1





	Hygienic equipment*	Disinfectability	Clean room suitability (DIN 14644-1)	Dry cleaning ▲	Damp cleaning ▲	Wisp rubbing ▲
Ceilings for clean rooms						
Humancare Sinfonia $\alpha_w = 0.85$ NRC = 0.85	X	X	ISO 4	X	X	
Humancare Sinfonia Silencia $\alpha_w = 1.00$ NRC = 1.00	X	X	ISO 4	X	X	
Sanitas® 02 Plain $\alpha_w = 0.15$ NRC = 0.15	X	X	ISO 4	X	X	X
OWAlux® White $\alpha_w = 0.15$ NRC = 0.15		X	ISO 4	X	X	X
OWAtecta metal ceilings	Our broad range of metal ceilings offers further properties such as ISO Class 1, suitability for high positive / negative pressure environments and resistance to chemicals. Information about this can be found in our separate publication no. 9398 „OWAtecta – Ceilings for Special Tasks“					

Ceilings for high humidity areas

Mavroc® Constellation $\alpha_w = 0.70$ NRC = 0.70				X	X	
Mavroc® Cosmos/N $\alpha_w = 0.65$ NRC = 0.65						
Ocean $\alpha_w = 0.95$ NRC = 0.95			ISO 4	X		

* Tiles with a hygienic finish prevent the growth of bacteria, germs and viruses. More information can be found on the relevant product pages.

▲ More information about the cleaning constructions can be found in the brochure DS 9989 e.

High-pressure cleaning** ▲	Resistance to humidity	Emissions	Recommended areas for use	Page
	95 % short-term	Formaldehyde: < 5 µg/m ³ (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Hospitals nurseries schools retirement homes/care homes fitness areas	12 – 13
	95 % short-term	Formaldehyde: < 5 µg/m ³ (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Hospitals nurseries schools retirement homes/care homes fitness areas	12 – 13
	95 % short-term	Formaldehyde: < 5 µg/m ³ (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Hospitals retirement homes/care homes laboratories sterile and hygiene areas	14 – 15
X	95 % short-term	Formaldehyde: < 5 µg/m ³ (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Precision engineering industry optical industry electronic high-tech manufacturing areas hospitals food industry laboratories sterile and hygiene areas	16 – 19
	95 % permanent	Formaldehyde: < 5 µg/m ³ (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Swimming pools changing rooms sanitary facilities wellness facilities	20 – 21
	100 % short-term	Formaldehyde: < 5 µg/m ³ (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Swimming pools changing rooms sanitary facilities wellness facilities objects with increased requirements for humidity resistance and room acoustics	22 – 23

** Installation with foam compression strip required



Safety and wellness

Humancare | Sinfonia

Humancare is a ceiling tile with special hygienic properties. It prevents the growth of bacteria, fungi and germs and even noroviruses and MRSA pathogens don't stand a chance. Its suitability for use in areas where hygiene is particularly important is confirmed by the tests specified in the standard NF S 90-351.

Thanks to its high absorption values, Humancare is particularly suited also to rooms in which good acoustics need to be achieved – i.e. anywhere that people gather and where a pleasant room environment in terms of acoustics is required as a contributing factor to wellness.

This makes Humancare the perfect choice not only for healthcare institutions like hospitals or retirement homes/care homes, but in particular also for nurseries and schools.



Surface example | Humancare | Sinfonia

Material	Mineral tile, fleece covered
Reaction to fire	A2-s1,d0 in accordance with 13501-1
Thickness	15 mm nom. (Sinfonia) 20 mm nom. (Sinfonia Silencia)
Colour	White
Light reflection	Approx. 87 (ISO 7724-2, ISO 7724-3)
Sound reduction*	$D_{n,f,w}$ = up to 28 dB, CAC = up to 30 dB
Sound absorption	α_w = up to 1.00 NRC = up to 1.00
Moisture resistance	up to 95 % RH
Reaction to fire*	up to REI 60 (13501-2)
Cleanroom class°	ISO 4 (ISO 14644-1)

* Dependent on system, soffit and other factors
° Tested with OWAconstruct system S 3



$D_{n,f,w}$ = 28 dB*, CAC = 30 dB*
 α_w = 0.85 | NRC = 0.85
up to REI 60 (EN 13501-2)



Humancare | Sinfonia

$D_{n,f,w}$ = 24 dB*, CAC = 24 dB*
 α_w = 1.00 | NRC = 1.00
up to REI 45 (EN 13501-2)



Humancare | Sinfonia Silencia

Possible sizes and system combinations

Module sizes in mm	Visible		
	S 3	S 3a	S 15a cliq
600 x 600	•	•	•
625 x 625	•	•	•
1200 x 600	•	•	•
1250 x 625	•	•	•

The detailed product specifications can be found in our data sheets at www.owa-ceilings.com.
Possible sizes and system combinations can be found in price list no. 9001 e

Luminares

Lifetime plus LED (satin finish or microprismatic) – 625 x 625 x 75 mm, IP 54, 31 W, ISO 4

For detailed information please see brochure no. 9630 e

Further information

Benefits:

- compliance with test standard NF S 90-351 in accordance with the stricter classification criteria of the current revision 2013-04
- clean room class ISO 4 in accordance with ISO 14644-01
- decontamination class CP(0.5) 5
- bacteriological purity class M1 or M10
- => suitable for all rooms up to the highest risk zone 4
- compliance with the internationally recognised JIS-Z-2801 standard (up to 5-log reduction)
- even multi-resistant hospital germs (MRSA) and murine noroviruses don't stand a chance
- 100 % recyclable as part of OWA green circle

Disinfectability:

Humancare prevents the growth of bacteria, viruses and fungi, even without additional measures. But for applications requiring additional disinfectability, you can also treat the tiles with spray disinfection*. Please feel free to request the corresponding test report (according to NFS 90 351) from us.

* Two spray applications (standard commercially available handheld spraying device) with e.g. 10 % ACTICIDE®-BAC-50-M solution or Meliseptol® (44 % ethanol solution)

For detailed information, refer to the corresponding brochure no. 9986 e.





Sterile conditions against fungi and bacteria

Sanitas® 02 | Plain




What makes the Sanitas® 02 | Plain tile so special is its robust surface, which offers increased resistance to repeated cleaning processes. Its hygienic finish complying to NFS 90-351 prevents the growth of bacteria, fungi and germs.

The Sanitas® 02 | Plain version is suitable for clean rooms up to ISO Class 4 and was also successfully subjected to the test series of the strict French standard NF S 90-351.

Sanitas® 02 | Plain can be disinfected with all standard disinfectants.

Sanitas® 02 | Plain is used primarily in hospitals, retirement homes/care homes and laboratories.



Material	Mineral tile
Reaction to fire	A2-s1,d0 in accordance with 13501-1
Thickness	15 mm nom.
Colour	White
Light reflection	Approx. 91 (ISO 7724-2, ISO 7724-3)
Sound reduction*	$D_{n,f,w} = 35 \text{ dB}$, CAC = 37 dB
Sound absorption	 $\alpha_w = 0.15$ NRC = 0.15
Moisture resistance	 up to 95 % RH
Reaction to fire*	 up to REI 180 (13501-2)
Cleanroom class°	Up to ISO 4 (ISO 14644-1)

Sanitas 02 | Plain

* Dependent on system, soffit and other factors

° Tested with OWAconstruct system S 3



Possible sizes and system combinations

Module sizes in mm	Visible	
	S 3	S 3a
600 x 600	•	•
625 x 625	•	•
1200 x 600	•	•
1250 x 625	•	•

The detailed product specifications can be found in our data sheets at www.owa-ceilings.com.

Luminaires

Lifetime plus LED (satin finish or microprismatic) – 625 x 625 x 75 mm, IP 54, 31 W, ISO 4

For detailed information please see brochure no. 9630 e

Further information

Benefits:

- compliance with test standard NF S 90-351 in accordance with the stricter classification criteria of the current revision 2013-04
 - clean room class ISO 4 ISO 14644-01: 1999
 - decontamination class CP(0.5) 2
 - bacteriological purity class M1 or M10
 => suitable for all rooms up to the highest risk zone 4
- even multi-resistant hospital germs (MRSA) and murine noroviruses don't stand a chance
- protects against factors from the ceiling cavity
- 100 % recyclable as part of OWA green circle

Cleaning/suitability for wipe-cleaning:

The surface can be dusted, vacuumed or cleaned with an OWA sponge with no loss of efficacy. Increased resistance to repeated cleaning processes (500 washing cycles following the "Gardner Test").

Disinfectability:

Disinfectable with all standard alcohol-based and aldehyde-based disinfectants. A report from the Institute for Medical Microbiology and Hospital Hygiene in Marburg in accordance with the guidelines of the DGHM* is available.

* Deutsche Gesellschaft für Hygiene und Mikrobiologie, German Association of Hygiene and Microbiology

A report on dry and wet abrasion resistance in accordance with ASTM D2486 is available (report no. 815_1640A).

A report on suitability for wipe-cleaning in accordance with ASTM D4828 is available (report no. 815_160A).

Response to microbial contamination:

Protection from microbial growth confirmed on the outer and inner surface. An expert opinion from Dr. Weßling Laboratorien GmbH is available.



Prof. Dr. R. Mutters
Institute for Medical Microbiology
and Hospital Hygiene, Philipps
University Marburg



Dr. Weßling
Laboratorium GmbH
Lebensmittel-Labor

**tested in accordance with
NF S 90-351:2013-04
and JIS Z 2801**



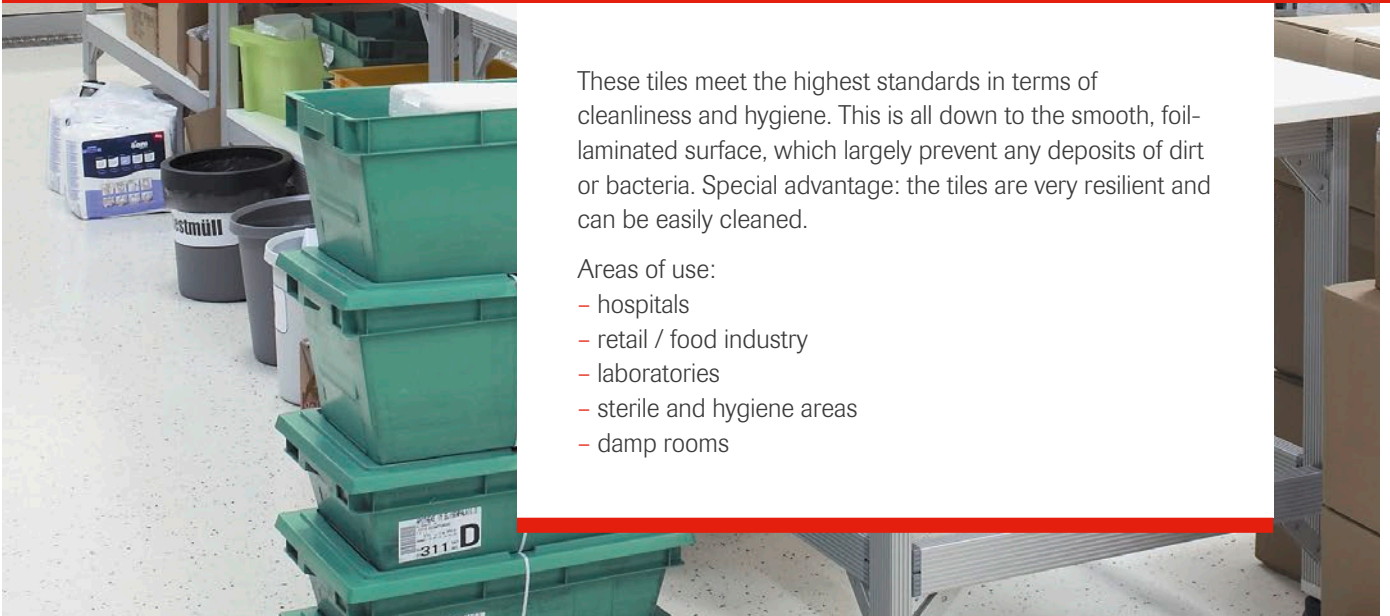
Focusing on smooth surfaces

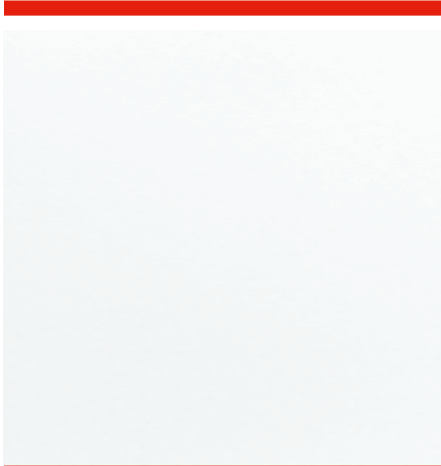
OWAlux®

These tiles meet the highest standards in terms of cleanliness and hygiene. This is all down to the smooth, foil-laminated surface, which largely prevent any deposits of dirt or bacteria. Special advantage: the tiles are very resilient and can be easily cleaned.

Areas of use:

- hospitals
- retail / food industry
- laboratories
- sterile and hygiene areas
- damp rooms





Surface example | OWAAlux | White

Material	Mineral tile, film laminated
Reaction to fire	A2-s3,d0 nach 13501-1
Thickness	15 mm nom.
Colours	White
Light reflection	Approx. 86 (ISO 7724-2, ISO 7724-3)
Sound reduction*	$D_{n,f,w} = 35 \text{ dB}$, $CAC = 37 \text{ dB}$
Sound absorption	$\alpha_w = 0.15$ $NRC = 0.15$
Moisture resistance	up to 95 % RH
Reaction to fire*	up to REI 60 (13501-2)
Cleanroom class°	ISO 4 (ISO 14644-1)

* Dependent on system, soffit and other factors
 ° Tested with OWAconstruct system S 3

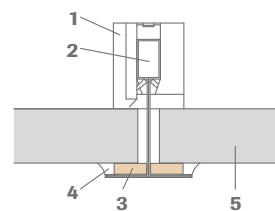


The detailed product specifications can be found in our data sheets at www.owa-ceilings.com.

Possible sizes and system combinations

Module sizes in mm	Visible
600 x 600	•
625 x 625	•
1200 x 600	•
1250 x 625	•

Construction example:



- 1 Hold down clip
- 2 Main tee and cross tee
- 3 Permanently elastic foam compression strip, if required
- 4 Silicone rubber (or equivalent), if required
- 5 Mineral tile, film laminated

Luminaires

Lifetime plus LED (satin finish or microprismatic) – 625 x 625 x 75 mm, IP 54, 31 W, ISO 4

For detailed information please see brochure no. 9630 e

Further information

Cleaning:

All OWAAlux® surfaces can be vacuumed, dusted or wiped clean with a damp OWA sponge. Increased resistance to repeated cleaning processes (500 washing cycles following the "Gardner Test").

High-pressure cleaning:

OWAAlux® tiles are suitable for large-scale cleaning with a high-pressure cleaner – with a maximum water temperature of 38°C and a maximum operating pressure of 40 bar. The cleaning jet is predefined by a flat nozzle. The nozzle spraying angle is 30°, the minimum distance is 40 cm.

For this type of cleaning, **installation with a seal** is required (see above). If the tiles are dirty or covered with aggressive media (alkaline solutions, acids, fat/grease etc.), it may not be possible to preserve the high-quality appearance after cleaning.

Temperature resistance:

up to 50°C in the area of the ceiling tile

Disinfectability:

According to an expert opinion from Dr. Weßling Laboratories in Altenberge, OWAAlux® | white tiles can be classified as having very good disinfectability.

Test passed: suitable for clean rooms

OWAAlux® is certified for clean room class **ISO 4** (ISO 14644-1). This makes it suitable for use in clean rooms. We will be glad to send you a test certificate to verify this.

OWAAlux® is a high-quality wet-felt product whose components are firmly bound together. For this reason, edge sealing is not necessary.



Air purity in clean rooms

The contamination of products and production processes due to airborne particles is monitored to a certain, appropriate level in clean rooms and in corresponding clean room areas. Particularly in the fields of aerospace, microelectronics, pharmaceuticals and the food industry, these types of clean room are used in sensitive production processes.

Construction materials for clean rooms are therefore subject to special requirements in terms of air purity – and this is expressed in minimal emissions of airborne particles. Many of our ceilings meet six of the nine classes that are defined via the maximum limits specified in EN ISO 14644-1 (ISO classes 4 – 9). This means that these ceiling systems are qualified for many clean room areas. The following overview helps to explain this:

Comparison of EN ISO 14644-1 classification with other standards and codes

The table below shows a comparison between EN ISO 14644-1 and the EC GMP guidelines as well as the US Federal Standard 209E. The US standard was withdrawn in 2001 and is provided as a guide only.

Nomenclature				Maximum permitted particle count according to EN ISO 14644-1 based on different particle sizes	
EN ISO 14644-1	EG-GMP „at rest“	EG-GMP „in operation“	US Fed. Standard 209E*	0.5 µm	
				Pro m ³	Pro cbf*
1					
2				4	0.1
3			1	35	1
4			10	352	9.9
5				3.520	100
	A			3.520	100
		B		3.520	100
6			100	3.530	100
				35.200	997
7			1.000	35.300	1.000
				352.000	9.972
	C			352.000	9.972
8		B		352.000	9.972
			10.000	352.000	10.000
	D			3.520.000	99.716
		C		3.520.000	99.716
9			100.000	3.520.000	100.000
				35.200.000	997.167

* Cubicfoot

EN ISO 14644-1

EN ISO 14644-1 only deals with air purity in terms of particulates. It forms part of the standard 14644, which in turn forms part of a series of standards and rulings (e.g. EC GMP guidelines) that cover the monitoring of contamination in clean rooms. Above and beyond this, there are many further requirements in terms of the temperature, pressure and humidity conditions in clean rooms, as well as in terms of the planning, operation and monitoring of clean rooms.

In individual cases, additional requirements or special restrictions may be imposed by the responsible regulatory authorities, which will result in corresponding additional testing requirements. The tests described in this publication relate only to the particulate emissions behaviour of tiles.

Sealing measures (e. g. during high-pressure cleaning)

The tile contact surface areas, ceiling mounting parts and connections to adjacent components must be sealed in accordance with the requirements. The foam compression strip used should be a closed-cell, crosslinked polyethylene foam compression strip in white, size 3 x 9 mm, which is self-adhesive on one side (no. 8900). All tiles are to be equipped with hold down clips no. 819 on the rear. The wall trim should be executed with the angled profile no. 57, wall spring clip no. 5210 and the seal described below.

In the event of a potential pressure load on the ceiling, the permanent negative pressure or overpressure must not exceed 40 Pa. The suspension must be executed with Nonius hangers. The quality of the sealing measures depends on the care of the person performing the work.

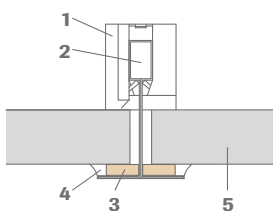
Note:

The use of sealing materials can result in a change in the building material classification in accordance with 13501-1. The type of sealing system used should be adapted to suit the usage needs of the relevant clean room.

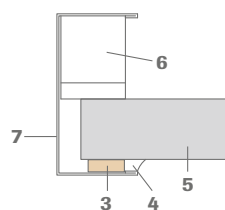
In cases where only the particulate emissions behaviour is relevant, the sealing tape and acrylic sealing can be omitted.

Construction example for versions with a seal


Cross-section:



Wall trim:



- 1 Hold down clip
- 2 Main tee and cross tee
- 3 Permanently elastic foam compression strip, if required
- 4 Silicone rubber (or equivalent), if required
- 5 Mineral tile, laminated
- 6 Wall spring clip no. 5210
- 7 Wall angle no. 57



Where ceiling tiles have to withstand high humidity

Mavroc®



Mavroc® is specially suited for damp rooms and areas with access to fresh air. The tiles display long-term humidity stability – at relative humidity levels of up to 95 % RH.

Areas of use:

- swimming pools
- changing rooms in sports facilities
- wellness facilities




Surface example | Mavroc | Constellation

Material	Mineral tile
Reaction to fire	A2-s1,d0 in accordance with 13501-1
Thickness	15 mm nom.
Colour	White
Light reflection	Approx. 88 (ISO 7724-2, ISO 7724-3) (Constellation) approx. 84 (ISO 7724-2, ISO 7724-3) (Cosmos/N)
Sound reduction*	$D_{n,f,w} = 35$ dB, CAC = 35 dB
Moisture resistance	 stable up to 95 % RH, permanently
Reaction to fire*	 up to REI 180 (13501-2)


* Dependent on system, soffit and other factors



 $\alpha_w = 0.70$ | NRC = 0.70



Mavroc | Constellation

 $\alpha_w = 0.65$ | NRC = 0.65



Mavroc | Cosmos/N

The detailed product specifications can be found in our data sheets at www.owa-ceilings.com.

Possible sizes and system combinations

Module sizes in mm	Visible			
	S 3e	S 3*	S 3 cliq*	S 15 cliq*
600 x 600	•	•	•	•
625 x 625	•	•	•	•

* Can only be used to a limited extent

Further information

Construction:

We recommend using the corrosion-protected OWAconstruct System S 3e in accordance with the requirements and room-climate conditions of the intended application area.

Note:

If the conditions at the intended site may promote condensation at the surface of the tiles, then we recommend the use of closed metal tiles from our OWAtecta range.

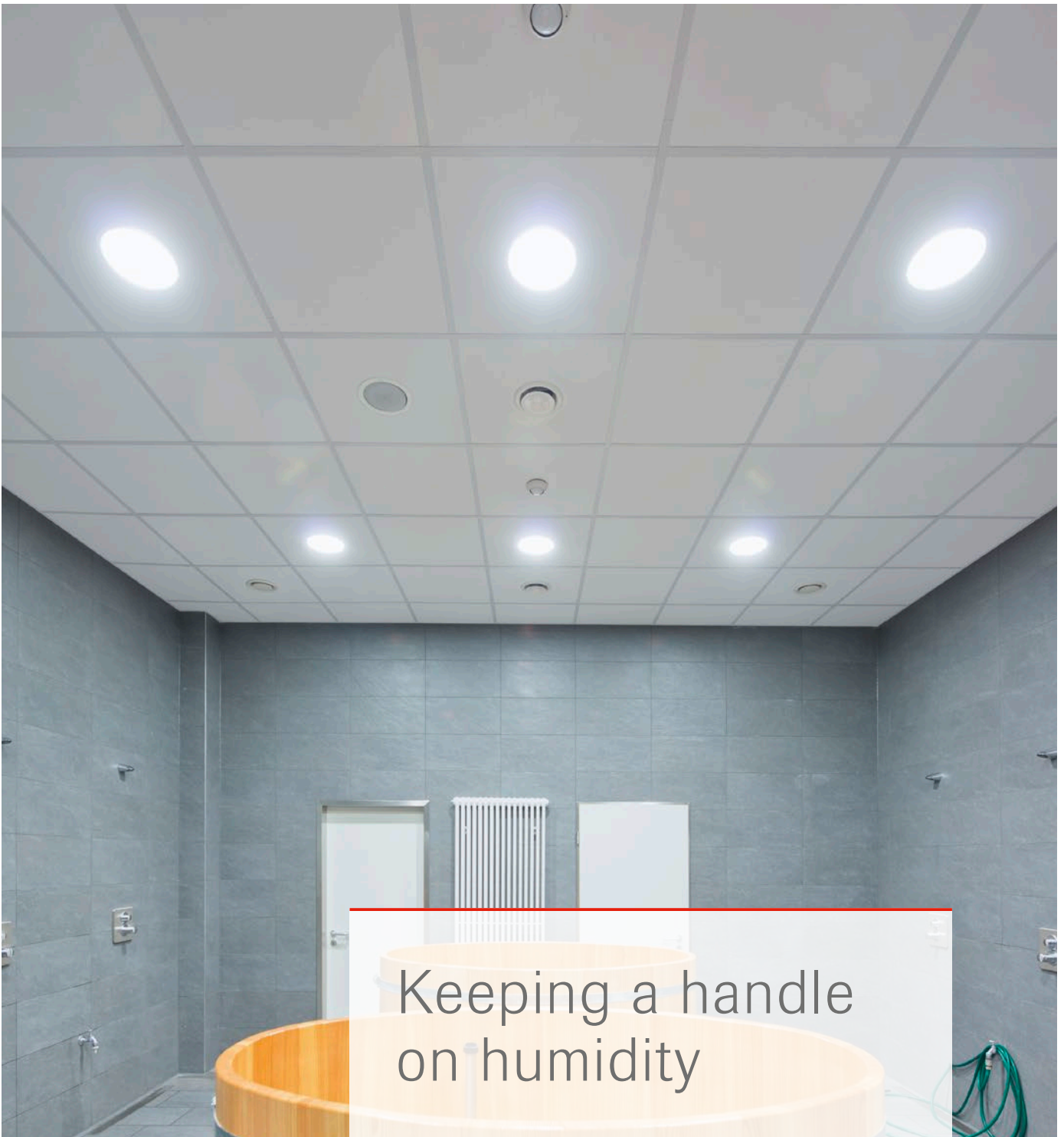
Cleaning:

Can be vacuumed, dusted or wiped clean with a damp OWA sponge.

Important:

Avoid spray water to prevent spots from forming.

For information on planning see also OWA installation guide no. 9801 e: sections 2.5, 3.2, 4.1 and 6.2.



Keeping a handle on humidity

Ocean




These new ceiling tiles with excellent sound absorption properties retain their dimensional stability even under extreme conditions and can be damp-wiped or vacuumed.

Areas of use:

- swimming pools
- changing rooms in sports facilities, Wellness facilities
- objects with increased requirements for humidity resistance, hygiene and room acoustics



Ocean

Material	Mineral tile, fleece covered
Reaction to fire	A2-s1,d0 in accordance with 13501-1
Thickness	20 mm nom.
Colour	White
Light reflection	Approx. 78 (ISO 7724-2, ISO 7724-3)
Sound reduction	$D_{n,f,w} = 28$ dB, CAC = 30 dB
Sound absorption	 $\alpha_w = 0.95$ NRC = 0.95
Moisture resistance	 up to 100 % RH
Reaction to fire*	 up to REI 60 (13501-2)
Cleanroom class°	ISO 4 (ISO 14644-1)

* Dependent on system, soffit and other factors
 ° Tested with OWAconstruct system S 3



The detailed product specifications can be found in our data sheets at www.owa-ceilings.com.

Possible sizes and system combinations

Module sizes in mm	Visible		
	S 3e	S 3*	S 3 cliq*
600 x 600	■	■	■
625 x 625	■	■	■

* Can only be used to a limited extent

Further information

Construction:

We recommend using the corrosion-protected OWAconstruct System S 3e in accordance with the requirements and room-climate conditions of the intended application area.

Note:

If the conditions at the intended site may promote condensation at the surface of the tiles, then we recommend the use of closed metal tiles from our OWAtecta range.

Cleaning:

Can be vacuumed and dusted.

Important:

Avoid spray water to prevent spots from forming.

For information on planning see also OWA installation guide no. 9801 e: sections 2.5, 3.2, 4.1 and 6.2.

Ceiling systems for special tasks

OWA counts on the German industry standard DIN 18177

In cooperation with the association WETEC, OWA has played a pivotal role in shaping the new DIN 18177 standard „Wet-felt factory-produced mineral panels – Characteristics and test methods“. DIN 18177 only sets out the production and properties of mineral tiles and defines the requirements for wet-felt manufactured mineral tiles. Alongside the classic requirements such as application areas, normative references, definitions of terminology, symbols and abbreviations, general and specific requirements, test methods, conformity assessment, description of the mineral tiles, labelling etc., DIN 18177 also defines the following classes:

- emissions of volatile organic compounds (TVOC)
- emissions of formaldehyde
- air permeability

Many OWAcooustic premium and smart products are classified as TVOC 1 and achieve values that are even below the limits required for the German „Blue Angel“ environmental certification. Just as for volatile organic compound emissions (TVOC), the products OWAcooustic premium and smart also fall well below the „Blue Angel“ certification limits for formaldehyde emissions of < 60 µg/m³. This places them in class FH 1 according to DIN 18177.

Tiles with high air permeability accumulate dust as a result of filtration effects. This impairs the decorative effects of the interior design tiles. By contrast, OWAcooustic products reduce this effect thanks to their low air permeability and thus prevent associated contamination of the surface.



The information in this brochure is up-to-date at the time of publication. Errors and mistakes excepted. Please contact our competence team OWAconsult for specific advice. Our experts will be happy to answer your questions under the following contact details: tel: +49 9373 201-444 or e-mail: info@owaconsult.de

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