

Ceilings for hygiene 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.:

- disinfectability
- preventing the growth of fungi and spores as well as bacteria and viruses

We have put our Sanitas 02 and Humancare ceiling tiles through the most stringent series of tests currently required worldwide. The tests are in accordance with NF S 90-351:2013-04. Following the successful test, both surfaces are suitable for the highest risk areas (level 4) in the healthcare sector.





Cleanliness in sensitive areas

Cleaning and disinfectability

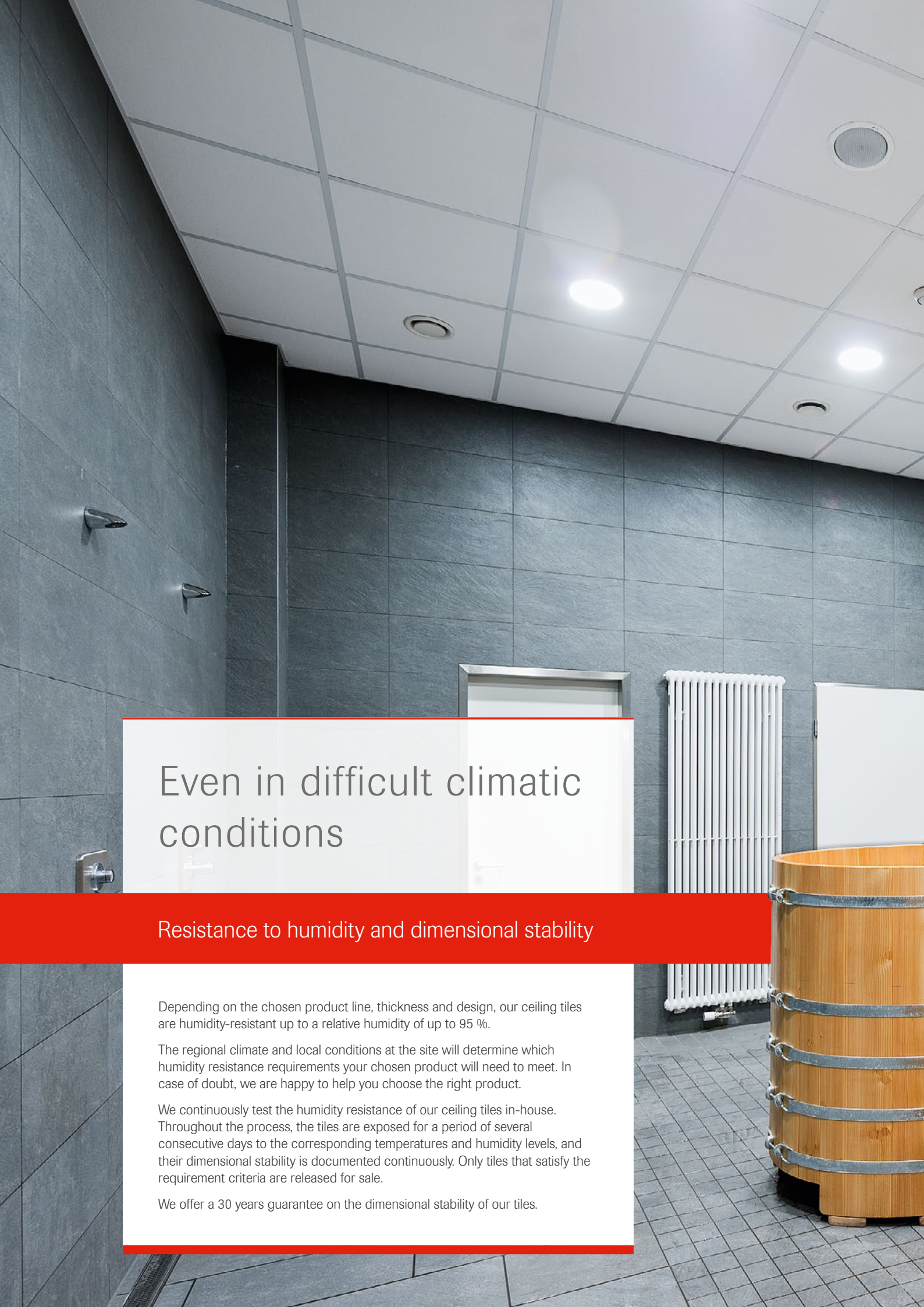
Our tiles, which are manufactured using the wet-felt process have an extremely low filtering effect, which means that by design, less dirt is trapped in the ceiling.

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

We have developed ceiling tiles for special applications that are disinfectable or display increased stability to repeated cleaning processes.

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





Even in difficult climatic conditions

Resistance to humidity and dimensional stability

Depending on the chosen product line, thickness and design, our ceiling tiles are humidity-resistant up to a relative humidity of up to 95 %.

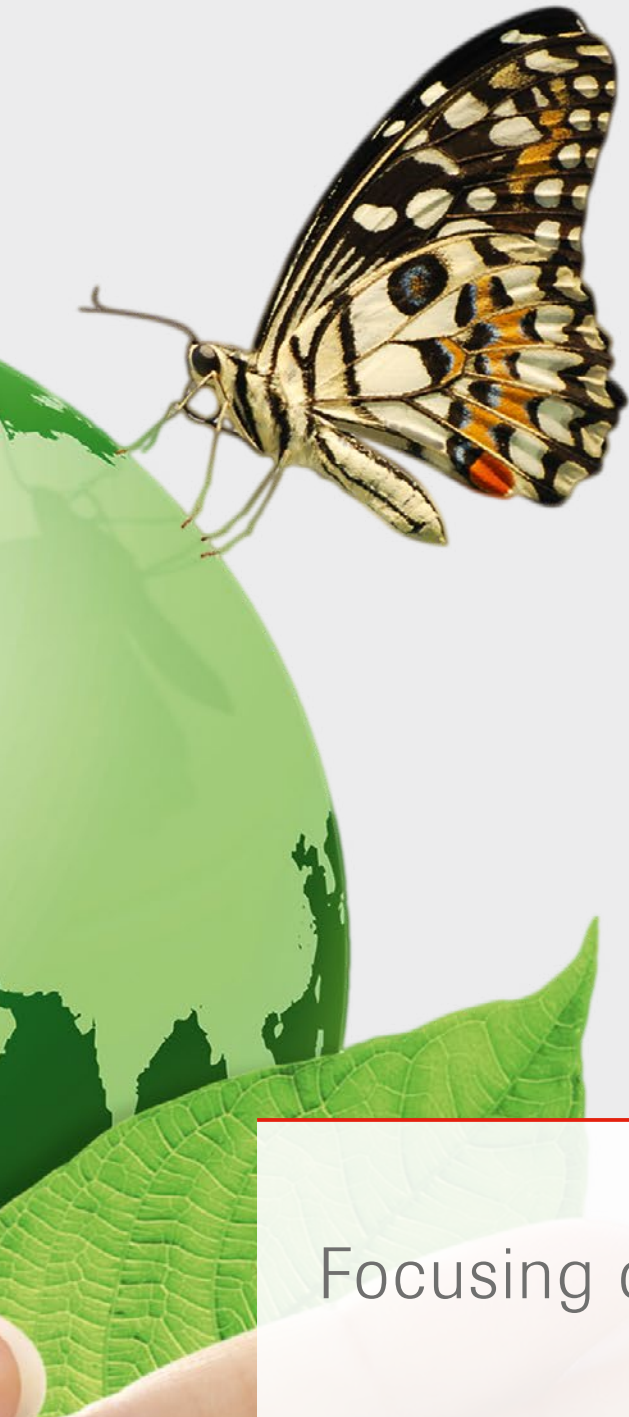
The regional climate and local conditions at the site will determine which humidity resistance requirements your chosen product will need to meet. In case of doubt, we are happy to help you choose the right product.

We continuously test the humidity resistance of our ceiling tiles in-house. Throughout the process, the tiles are exposed for a period of several consecutive days to the corresponding temperatures and humidity levels, and their dimensional stability is documented continuously. Only tiles that satisfy the requirement criteria are released for sale.

We offer a 30 years guarantee on the dimensional stability of our tiles.







Focusing on the future

Sustainability and recyclability

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

- biosoluble mineral wool 30 % – 60 %
- organic binding agents 5 % – 10 %
- solvent-free dispersions 0 % – 5 %
- natural filler (clay, perlite) 20 % – 40 %
- pulp 2 % – 5 %
- recycled material from returned tiles up to 50 %

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.

Almost all OWAcooustic ceiling tiles are 100 % recyclable.

Ceilings for clean rooms	Octave 75 Humancare NRC = 0.75	Octave 85 Humancare NRC = 0.85	Sanitas® 02 Plain NRC = 0.10
Hygienic equipment*	X	X	X
Disinfectability	X	X	X
Clean room suitability (DIN 14644-1)	ISO 4	ISO 4	ISO 4
Dry cleaning*²	X	X	X
Damp cleaning*²	X	X	X
Wipe-cleaning*²			X
Resistance to humidity	95% short-term	95% short-term	95% short-term
Emissions	Formaldehyde: < 0.142 µg/ft ³ (< 5 µg/m ³) (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Formaldehyde: < 0.142 µg/ft ³ (< 5 µg/m ³) (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)	Formaldehyde: < 0.142 µg/ft ³ (< 5 µg/m ³) (ISO 16000) class: FH I / TVOC I / PM I (ISO 18177)
Recommended areas for use	Hospitals, nurseries, schools, retirement homes/care homes, fitness areas	Hospitals, nurseries, schools, retirement homes/care homes, fitness areas	Hospitals, retirement homes/care homes, laboratories, sterile and hygiene areas
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* Tiles with a hygienic finish prevent the growth of bacteria, germs and viruses. More information can be found on the relevant product pages.

*² More information about the cleaning constructions can be found in the brochure DS 9989 us.



Safety and wellness

Octave Humancare


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.



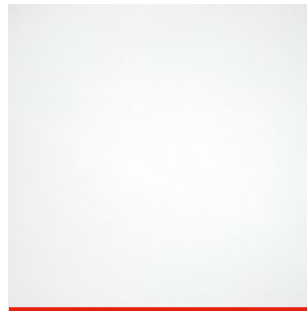
Octave Humancare

ASTM E 1264 Classification	Type IV, form 2, pattern E
Reaction to fire	CAN/ULC-S102 Class 1 (ASTM E84) Class A (ASTM E 1264)
Thickness	5/8" nom.
Color	White
Light reflection	Approx. 87 (ASTM E 1477)
Sound reduction*	CAC = 27 dB
Moisture resistance	 up to 95 % RH
Cleanroom class^o	ISO 4 (ISO 14644-1:1999)

* Dependent on dimension, system, soffit and other project specific factors
^o Tested with OWAconstruct 15/16" grid

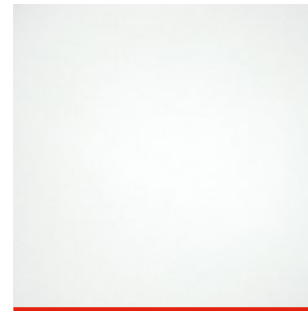


NRC = 0.75















Octave 75 Humancare

NRC = 0.85



Octave 85 Humancare

Possible sizes and system combinations

Module size in inches	SQ	RE 15/16	RE 9/16	RE bolt-slot
24" x 24"				
24" x 48"				
24" x 60"				
24" x 72"				

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 14644-01:1999
 - 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

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 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)





Sterile conditions against fungi and bacteria

Sanitas® 02 | Plain

What makes the special Sanitas® 02 version so special is its robust surface, which offers increased resistance to repeated cleaning processes. Its hygienic finish also prevents the growth of bacteria, fungi and germs.



Sanitas® 02 | Plain is also 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.





Sanitas 02 | Plain

ASTM E 1264 Classification	Type III, form 2, pattern E G
Reaction to fire	CAN/ULC-S102 Class 1 (ASTM E84) Class A (ASTM E 1264)
Thickness	5/8" nom.
Color	White
Light reflection	Approx. 92 (ASTM E 1477)
Sound absorption	 NRC = 0.10
Sound reduction*	CAC = 42 dB
Moisture resistance	 up to 95 % RH
Cleanroom class°	Up to ISO 4 (ISO 14644-1:1999)

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



Possible sizes and system combinations

Module size in inches	SQ
24" x 24"	
24" x 48"	

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 (both surfaces):

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. Weißling Laboratorien GmbH is available.



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



Dr. Weißling Laboratorium GmbH
Lebensmittel-Labor



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 $< 1.7 \mu\text{g}/\text{ft}^3$ ($< 60 \mu\text{g}/\text{m}^3$). 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.

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