PERFORMANCE CEILINGS

More scope for innovation

NEW FROM AMF

100% RH
sound absorbing
washable

THERMATEX AQUATEC

THE SOUND ABSORBING CEILING TILE FOR 100% RH

MADE IN GERMANY

AMF THERMATEX AQUATEC - The sound absorbing ceiling tile

In rooms with permanently high humidity, such as swimming pools, sanitary facilities or large kitchens, special demands are placed on the ceiling in terms of humidity resistance. Due to its special composition, THERMATEX Aquatec resists humidity up to 100% RH. This means that it is dimensionally stable when exposed to high humidity and temperatures from 0° to 40°C. This makes THERMATEX Aquatec especially suitable for many applications, such as offices and retail in regions with a naturally high humidity like the the tropics. For thorough cleaning the THERMATEX Aquatec can also be washed. The Aquatec also has outstanding sound absorption providing an optimal solution for most hygiene applications.

Application areas

THERMATEX Aquatec provides an excellent solution for critical applications, in which the product selection must be made especially carefully:

- Healthcare facilities
- sanitary facilities
- kitchens
- swimming pools (corrosion resistant grid system required)

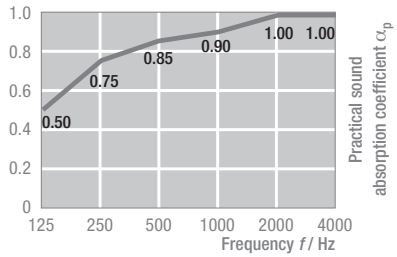
Plus points:

- **100% RH (relative humidity)**
- **washable**
- **Clean Room Class 3 as per ISO 14644-1**
- **highly absorbing, α_w / *NRC* = 0.90 (EN ISO 11654)**
- **white, plain fleece surface**
- **sound attenuation of 28 dB**
- **HYGENA-coating optional**

SYSTEM	C	Exposed system, demountable ceiling
	A	Concealed system, demountable ceiling
Building material class		A2-s1,d0 as per EN 13501-1
Sound absorption		EN ISO 354
Sound attenuation		$D_{n,f,w}$= 28 dB as per EN 10848 (according to test certificate)
Clean room		Class 3 as per ISO 14644-1
Humidity		up to 100% RH
Light reflectance		up to 88%
Thermal conductivity		λ = 0.040 W/mK as per EN 12667
Dimensions		600 x 600 / 625 x 625 mm
Thickness / Weight		19 mm (c. 4.7 kg/m²)
Colours		white similar to RAL 9010

Sound absorption

Value for
THERMATEX Aquatec
19 mm
α_w = 0.90
as per EN ISO 11654
NRC = 0.90
as per ASTM C 423
extremely absorbing



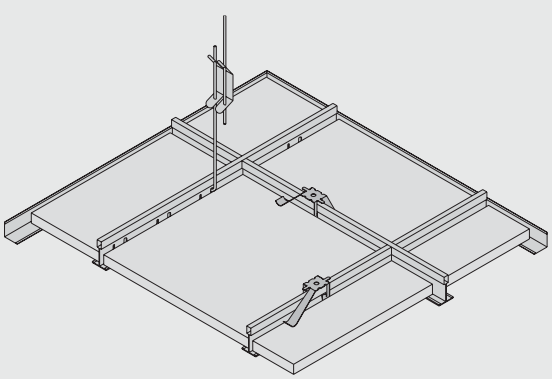
e for 100% RH

Installation of THERMATEX Aquatec

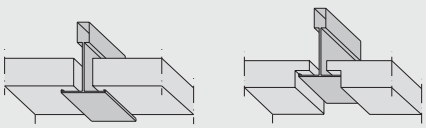
AMF ***VENTATEC*** grid is ideally suited for the installation of AMF THERMATEX Aquatec. Choosing ceiling tiles and grid from the same manufacturer provides a complete tested system. The grid is especially designed for high quality AMF ceiling tiles and its properties provides many advantages for architects, installers and distributors. AMF offers appropriate solutions for all exposure classes (corrosion resistance according to EN 13964) for standard applications and tougher environments such as swimming pools. Please refer to the installation and cleaning guidelines for THERMATEX Aquatec for further information.

System C - Exposed Grid

- Exposed grid systme
- Edge details SK (square edge) and VT (recessed edge)
- Quick and easy installation
- Easy to dissemble for maintenance work
- Fast access to the void for maintenance



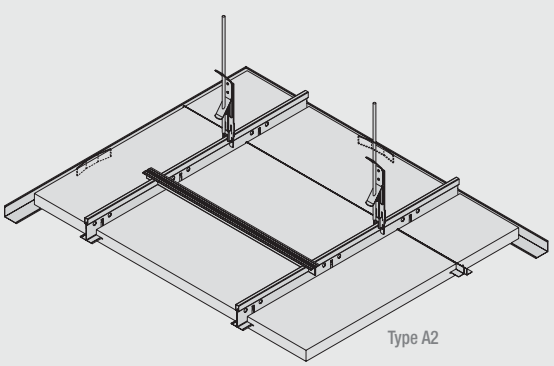
Edge details



SK VT - S15 / 24

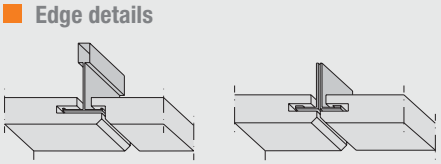
System A - Concealed Grid Construction

- Concealed grid sections
- Smooth, monolithic appearance
- Available in both demountable and non accessible versions



Type A2

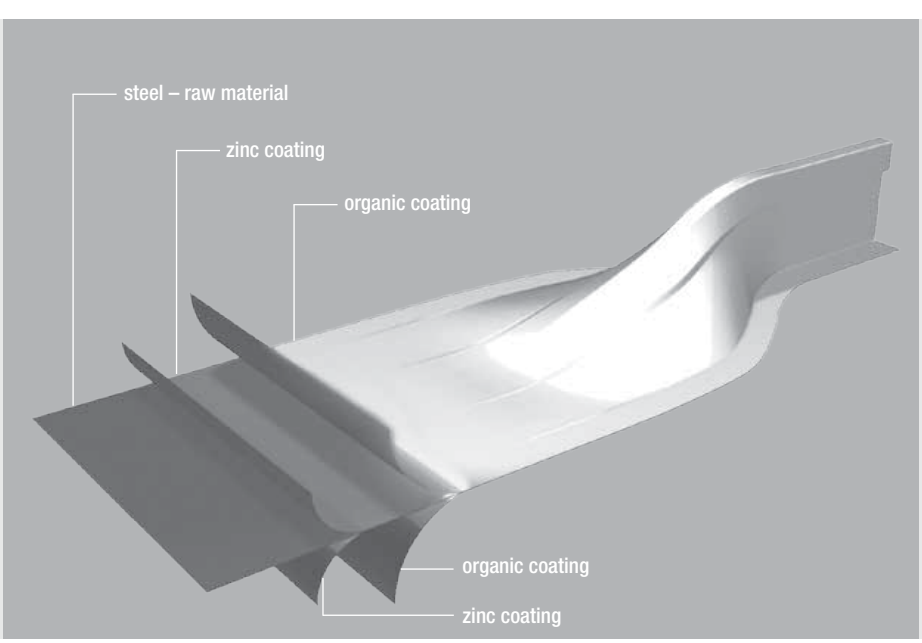
Edge details



AW GN

Corrosion resistant grid

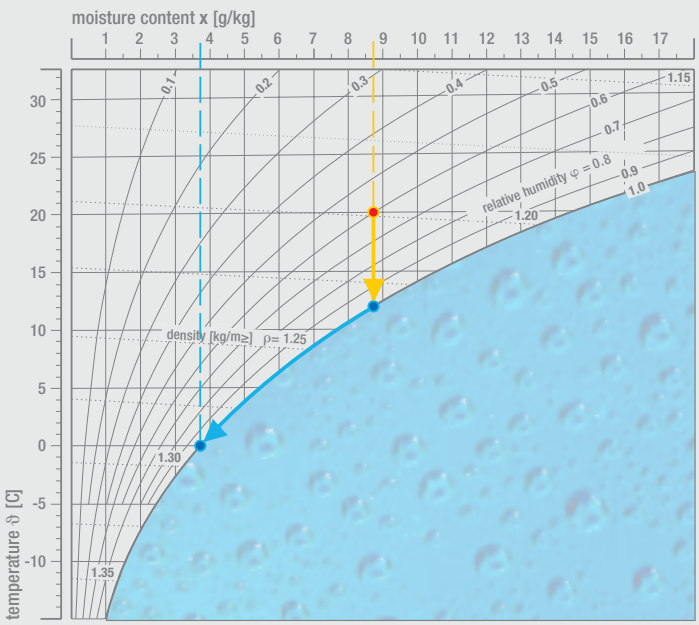
When installing THERMATEX Aquatec in rooms with increased humidity (above 90% RH or corrosive pollutants), a special grid with enhanced protection against corrosion should be used.



For more details see programme part 1, system solutions.
For available sizes as well as delivery categories and minimum quantities, please see the price list or www.amfceilings.com

Humidity

Humidity has a significant influence on the stability and structure of a mineral ceiling and therefore its longevity. High levels of humidity could lead to a loss of dimensional stability and deformation. The amount of water vapor air can hold is dependent on temperature



Example with 1 bar air pressure

At 20°C the total absorption capacity of air is approximately 14.7g/kg. If instead, an actual water content was 8.7g/kg, this would result in a relative humidity of 60%. If this air were then cooled, the water content does not change, however the absorption capacity of the air reduces. As a consequence the relative humidity increases to an extent, that at approximately 12°C, saturation is reached, beyond which no more water vapour can be absorbed (this is also called the dew point). By further cooling, the excess water vapour condenses and leads to water droplet formation.
Air at 0°C, can in comparison only absorb a maximum of 3.7g/kg water until it reaches saturation.

ϑ = 20°C	x = 14.7g/kg	φ = 100%
ϑ = 20°C	x = 8.7g/kg	φ = 60%
ϑ = 0°C	x = 3.7g/kg	φ = 100%

If unsuitable materials are used in areas with increased humidity, it can lead in many cases to adverse visual effects or even structural damage.

THERMATEX Aquatec can be used under these conditions without any problems.

Exposure classes according to EN 13964

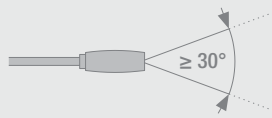
CLASS	CONDITIONS	APPLICATION EXAMPLES	RECOMMENDED SUBSTRUCTURE
A	Building components exposed to varying relative humidity up to 70% and varying temperature up to 25°C, but without corrosive pollutants.	Offices, shops, schools, hotels, sports halls, storage areas	Conventional grid system e.g. ***VENTATEC***
B	Building components exposed to varying relative humidity up to 90% and varying temperature up to 30°C, but without corrosive pollutants.		
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.	Shower rooms, food production (e.g. dairies, breweries…), laundries	Grid system with corrosion protection
D	More severe than the above.	Swimming pools, chemical plants	

Cleaning options / washability

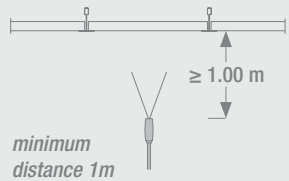
Dry cleaning	with a soft cloth, soft brush or vacuum cleaner
Damp cleaning	with a well wrung-out cloth or sponge
Wet cleaning	with lukewarm water (up to 40°C), a sponge and mild cleaning agent (pH value between 7 and 9)
Pressure cleaning	THERMATEX Aquatec can be cleaned weekly with a high pressure cleaner. The entire ceiling should be cleaned at the same time and the surface must be dried after cleaning. Pressure cleaning is only possible for ceilings installed on exposed grid (SK edge detail) and with a corrosion resistant grid system. The full cleaning guidelines need to be adhered to.

max. 40°

max. working pressure 80 bar



spray angle at least 30°



minimum distance 1m

For further information, please see the installation and cleaning guidelines.

HEALTHCARE

Innovative ceiling technology for the health sector.

When constructing healthcare facilities, hospital hygiene and prevention of infection are significant issues.

Typical Healthcare facilities include:

- **hospitals and outpatient clinics**
- **laboratories**
- **doctor's surgeries**
- **nursing homes**
- **rehabilitation facilities**

Due to the high occupancy levels of hospitals and clinics, the risk of germs spreading and infecting already ill people is increasing. Hygiene is therefore becoming ever more important. Using the correct finishes in addition to good hygiene practices within these environments will result in improved hygiene and reduced rates of infection.

Installation of the correct ceiling finishes can assist in meeting these increased Hygiene requirements.

Healthcare

Knauf AMF GmbH & Co. KG
Elsenthal 15
D-94481 Grafenau
Germany
Tel.: +49 (0) 85 52 / 422 - 0
Fax: +49 (0) 85 52 / 422 - 32
E-mail: info@knaufamf.de
http://www.amfceilings.com

The RAL- Quality Mark confirms the consistently high quality of the AMF mineral wool, as well as its biological solubility.

Knauf AMF GmbH & Co. KG. is certified according to ISO 9001 and ISO 14001.

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