



System Data Sheet
BASWAphon Cool

Issue 2015/1

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System Data Sheet

BASWAphon Cool

1 Application

Large-scale, water-bearing capillary tube mats are installed right up close to the surface and if there are space and energy requirements they create a draft-free and silent room temperature control with excellent sound absorption.

Excellent cooling and heating capacities are attained due to the low acoustic plaster cover and the layer near the surface, as well as the good thermal conductivity of the mineral acoustic plaster.

Properties:

- Excellent broadband sound absorption
- Cooling capacity at $\Delta t = 8 \text{ K}$: 79 W/m^2 (according to DIN EN 14240 : 2004-04)
- Heating capacity at $\Delta t = 15 \text{ K}$: 117 W/m^2 (according to DIN EN 14037-2)
- Minimum installation height
- Smooth seamless surfaces
- Extensive range of colours (NCS/RAL)
- Building material class B-s1-d0 according to DIN EN 13501-1

Suitable for processing:

- Horizontal, sloped or vertical surfaces
- Seamless, even surfaces up to a size of 500m² concrete) and 150m² (gypsum plasterboard, suspended systems)
- Simple vaulted surfaces

Possible areas of use:

- Commercial and industrial buildings
- Single and multiple family houses
- Listed buildings
- Exhibition halls
- Churches
- Concert halls, operas, event rooms
- Restaurants
- Cinemas
- Hotels, lobbies, auditoriums
- Recording studios, nightclubs

See BASWA References at www.baswa.com

Requirements for the substrate (ceiling / wall):

For the adhesion of BASWAphon Cool systems, the substrate must fulfil the following requirements:

1. Must be mineral, solid (concrete)
2. Must comply with the required final form
3. Must be stable (no formation of cracks)
4. Adhesive strength > 0.3 kN/m² (approx. 30 kg/m²)
5. Must be airtight
6. Prevention of dew point must be guaranteed

Processing conditions:

BASWAphon Cool systems can only be processed by companies that have been trained by BASWA acoustic AG and have a BASWAphon Cool certificate. This also applies to the delivery of our products BASWA acoustic AG only supplies to certified companies. Our BASWA processing guidelines also apply.

2 System profile

- Multiple coat system
- Grain size of final coating 0.3/0.5/0.7mm (Top, Fine, Base)
- Standard colour ~ NCS S 0500-N
- Maximum finish quality of surface <Q3>

3 Weight of the system

From lower edge of the substrate:

System thickness 55mm approx. 280 N/m² (28 kg/m²)

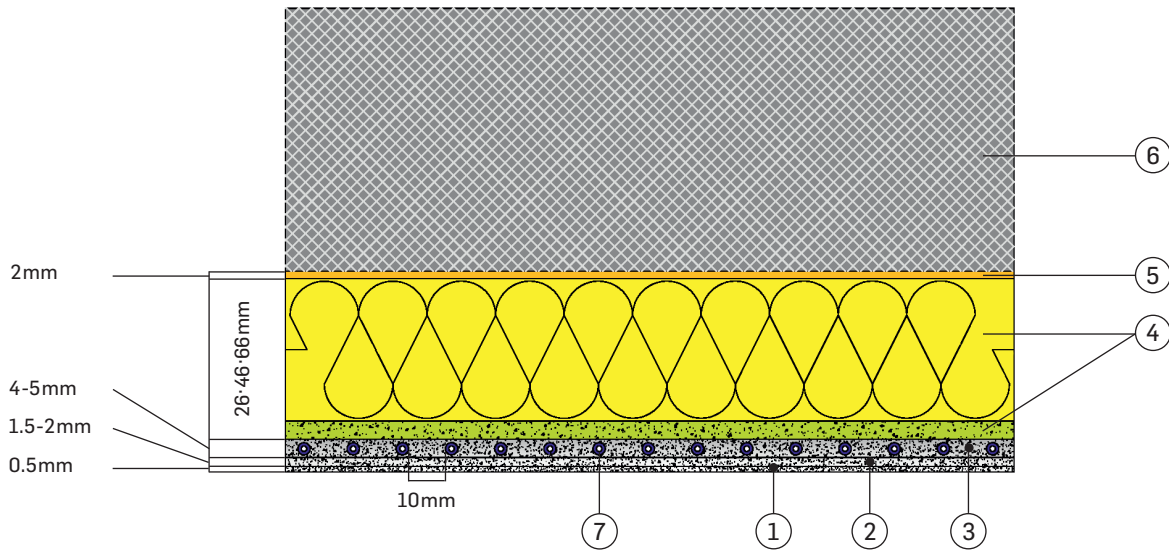
System thickness 75mm approx. 280 N/m² (28 kg/m²)

Note:

Because of the different workmanship, the weights may differ by +/- 15 N/m² (1.5 kg/m²).

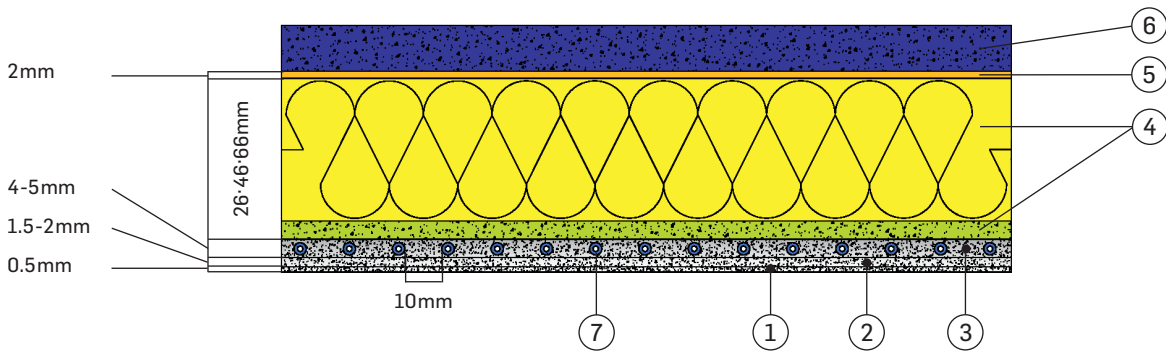
4 System construction

Solid ceilings



1. BASWAphon top coating 2. BASWAphon Base base coat 3. BASWAphon Base injected filler layer 4. BASWAphon acoustic panel
5. BASWAfix C - cementitious adhesive mortar 6. Concrete 7. Capillary tube mats PPR diam. 3, 4mm

Suspended ceilings

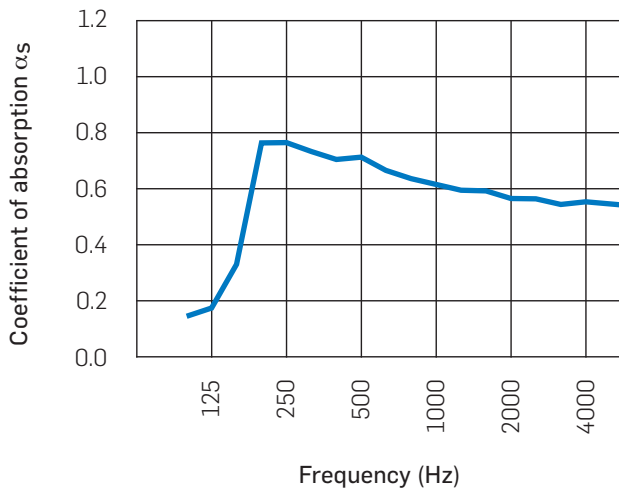


1. BASWAphon top coating 2. BASWAphon Base base coat 3. BASWAphon Base injected filler layer 4. BASWAphon acoustic panel
5. BASWAfix K - gypsum adhesive filler 6. Structural panel, e.g. Fermacell or plaster board 7. Capillary tube mats PPR diam. 3, 4mm

5 Measured values of the system

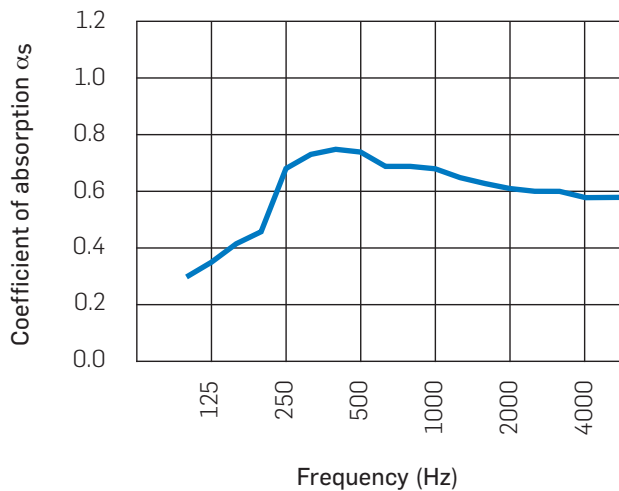
BASWaphon Cool Classic Top

55mm on solid ceilings



Coefficient of sound absorption α_s according to ISO-standard EN ISO 354

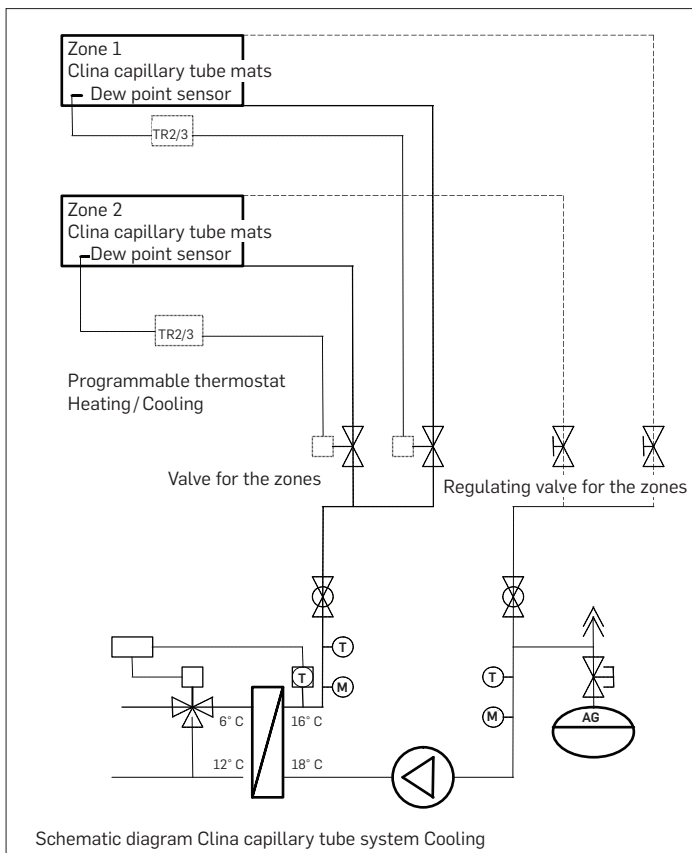
55mm suspension, 250mm



Coefficients of sound absorption α_s according to ISO-standard EN ISO 354

6 Layout diagram

2.5 Systems and control diagram



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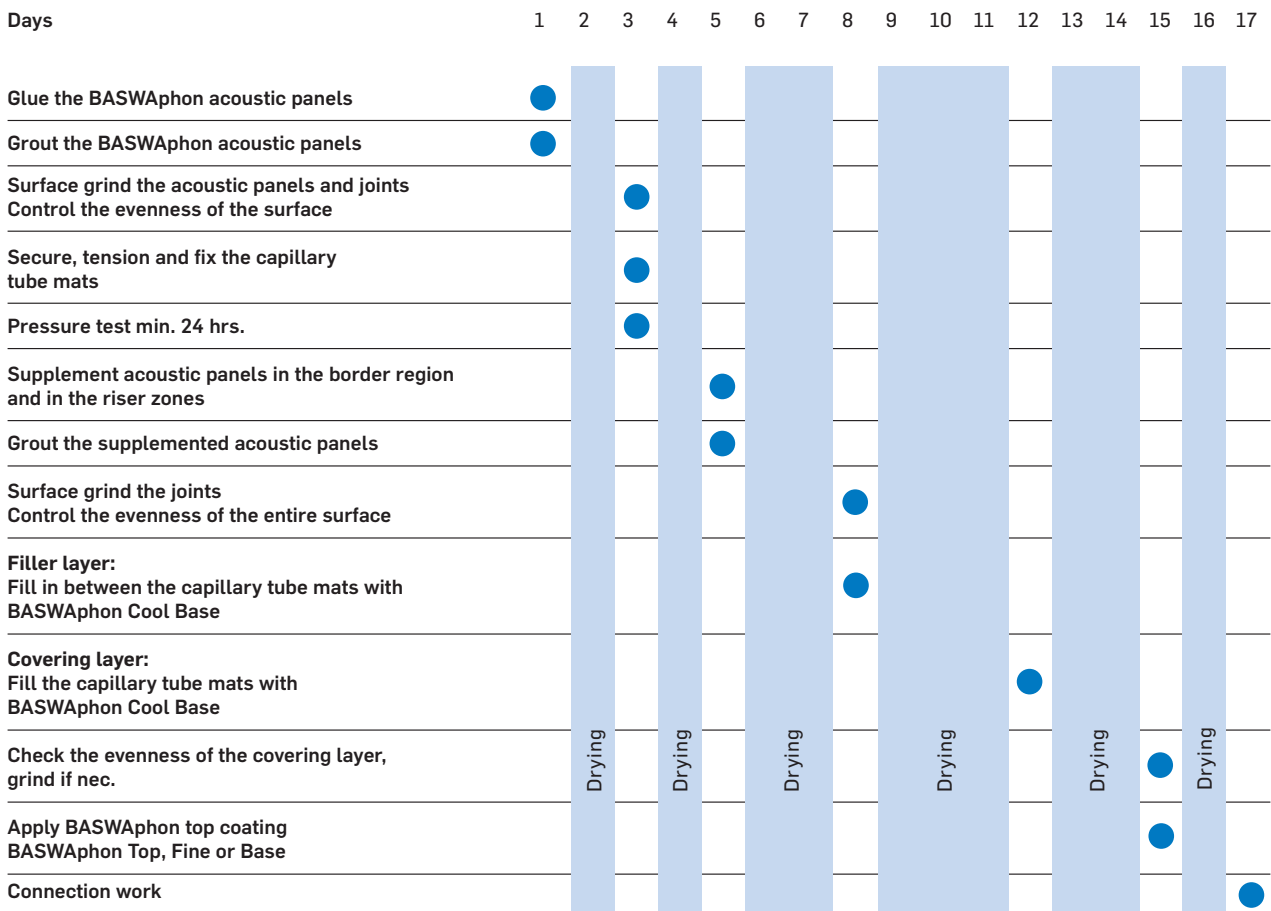
7 Installation conditions

- The BASWaphon Cool system must only be planned for use in closed buildings, which are equipped with a controlled ventilation system.
- The flow temperature must not exceed 35 °C.
- The drop in pressure loss not exceed 20 kPa because it is very important to have a high pump output.
- The capillary tube mats are not impermeable to oxygen diffusion. In order to prevent sludging or the build-up of deposits in a closed circuit, the the equipment, fittings and connections in the BASWaphon Cool secondary part must be made from the following materials:
 - Panel heat exchanger made of brass or stainless steel
 - Speed-regulated cold water pump made from niron or bronze
 - Cooling ceiling distributor made from bronze or stainless steel
 - Secondary lines to the cold distributor made from at least V2A or plastic
 - All screw connections and fittings made from stainless material (V2A, gun metal, etc.)

8 Installation time

The installation time given is based on a working group of three to four people and a ceiling size of 40 to 60m². It is absolutely necessary to have a spray machine. The drying times of the BASWAphon joints and coating composition relate to the atmospheric conditions of the room: 20° C room temperature / 50% relative humidity. Allow each processing step to dry thoroughly, material humidity < 10%.

BASWAphon Cool



9 Surface protection / Cleaning / Repairs

See BASWA documentation www.baswa.com

10 Legal notice

The information provided above, in particular the suggestions for the processing and use of our products, are based on our current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this notice, or from any other advice offered, unless we are demonstrably guilty of wilful misconduct or gross negligence. In this instance the user has to prove that he has informed BASWA in writing of all the necessary information promptly and in full as required by BASWA for a proper and thorough evaluation. The user of the product must test its suitability for the intended application and purpose. We reserve the right to change the properties of this product. The proprietary rights of third parties must be observed. Our current terms of sale and delivery apply. The most recent issue of the System Data Sheet respectively applies and is available from us on request.

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