BASWA acoustic®

System data sheet
BASWA Phon Base

Issued 2018 / 1

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1 Application

For the reduction of the reverberation time in ceilings and wall surfaces.

Properties:

- Excellent broadband sound absorption
- Minimal installation height
- Smooth, seamless surface
- Extensive colour selection chart BASWA colours BC or (individual NCS / RAL)
- Non-flammable (A2-s1, d0) according to DIN EN 13501-1
- CE certified / ETA-No: 16 / 0144 (CSTB)

Suitable for processing:

- Horizontal, inclined or vertical surfaces
- Seamless, straight surfaces up to areas of 500 m^2 (on concrete) and 100 m^2 (on plasterboard, suspended systems, observe specifications of the gypsum industry)
- Curved and side-light exposed surfaces are to be executed in two coat systems («Classic System»: Base, Fine or Top)

Requirements for the surface (ceiling / wall):

For the adhesion of BASWA Phon systems, the surface must fulfil the following requirements:

1. Must be a mineral, massive or suspended system
2. Must conform to the required final shape
3. Must be stable
4. Adhesive strength > 250 N / m^2 (25 kg / m^2)
5. Must be airtight
6. Prevention of dew point must be guaranteed

Processing conditions:

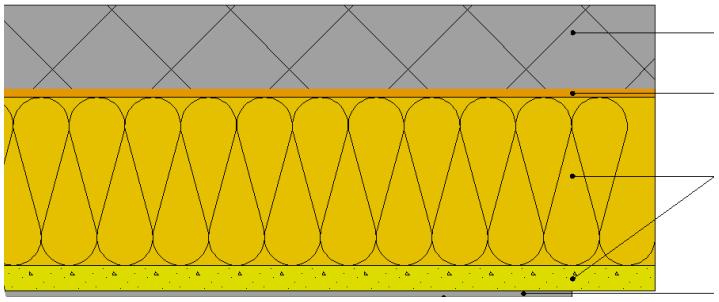
BASWA Phon acoustic systems can only be installed by companies that have been trained by BASWA acoustic AG and are in possession of a BASWA Phon certificate. BASWA acoustic AG only supplies to certified companies. The latest BASWA planning documents as the processing guidelines also apply.

2 System profile

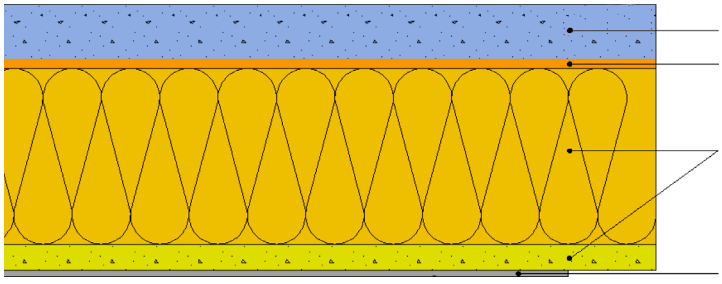
- One coat system
- Grain size of the final coating BASWA Base 0.7mm
- Roughest surface structure
- Standard colour ~ NCS S 0500-N
- Finish quality Standard <Q2> / Classic Base/Fine/Top max. <Q3>

3 System construction

Massive ceilings

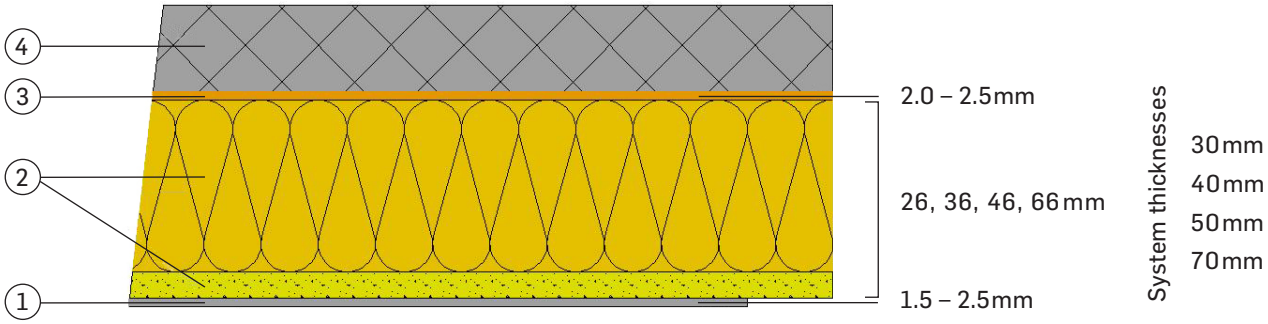


Suspended ceilings



4 System thicknesses

Substrate massive or suspended



1. BASWA Base final layer 2. BASWA Phon acoustic panel 3. Adhesive 4. Substrate

5 System weights

From the lower edge of the base

System thickness 30mm	ca. 69 N / m²	(7.06 kg / m²)
System thickness 40mm	ca. 79 N / m²	(8.06 kg / m²)
System thickness 50mm	ca. 89 N / m²	(9.06 kg / m²)
System thickness 70mm	ca. 98 N / m²	(10.06 kg / m²)

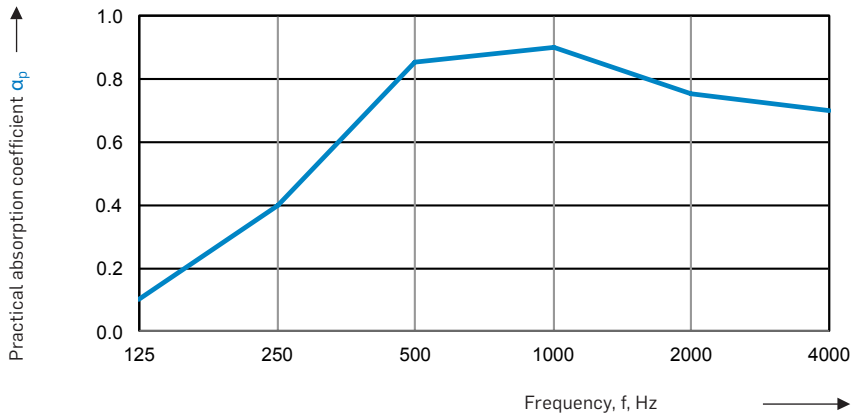
Note:
The weight data can vary depending on the craftsman's processing by ± 15 N / m² (± 1.5 kg / m²)

6 Thermal properties

BASWA Phon Base	1 / U	U-value (W / m² K)	λ Lambda-value (W / m K)	R (m² K / W)
30mm	0.68	**1.47**	**0.044**	**0.68**
40mm	0.96	**1.04**	**0.041**	**0.96**
50mm	1.25	**0.80**	**0.040**	**1.25**
70mm	1.82	**0.55**	**0.038**	**1.82**

7 Acoustic system measurement values

BASWA Phon Base 30mm on massive ceilings



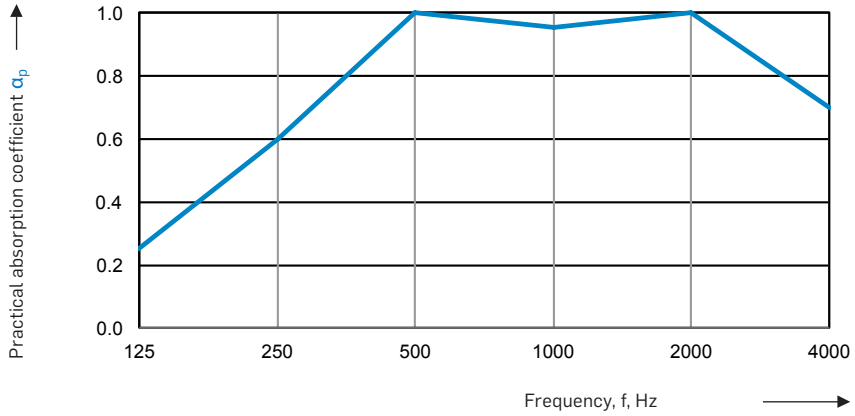
according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.70** Sound absorption class **C**

evaluated according to **ASTM C423-09a**
Noise Reduction Coefficient **NRC = 0.70**
Sound Absorption Average **SAA = 0.70**

α_p	frequency f, [Hz]	α_s
	100	0.08
0.10	**125**	0.13
	160	0.16
	200	0.22
0.40	**250**	0.34
	315	0.67
	400	0.78
0.85	**500**	0.84
	630	0.88
	800	0.91
0.90	**1000**	0.88
	1250	0.85
	1600	0.81
0.75	**2000**	0.75
	2500	0.71
	3150	0.70
0.70	**4000**	0.68
	5000	0.68

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

BASWA Phon Base 40mm on massive ceilings



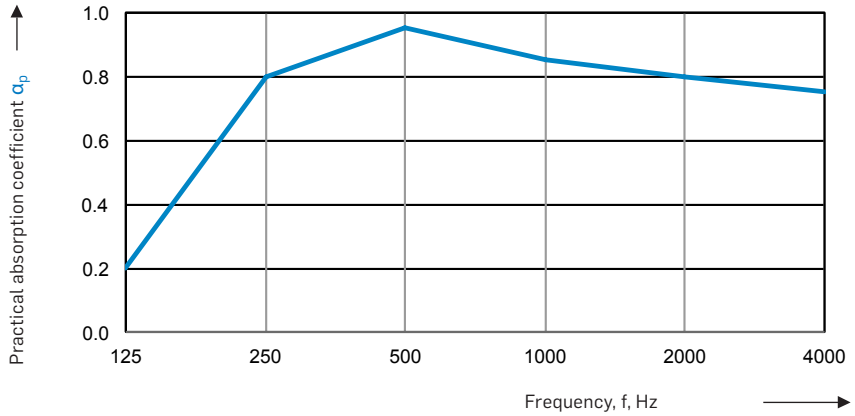
according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.85 (M)** Sound absorption class **B**

evaluated according to **ASTM C423-09a**
Noise Reduction Coefficient **NRC = 0.90**
Sound Absorption Average **SAA = 0.90**

α_p	frequency f, [Hz]	α_s
	100	0.27
0.25	**125**	0.23
	160	0.28
	200	0.36
0.60	**250**	0.66
	315	0.78
	400	0.93
1.00	**500**	0.99
	630	1.03
	800	1.03
0.95	**1000**	0.98
	1250	0.91
	1600	1.13
1.00	**2000**	0.94
	2500	0.96
	3150	0.82
0.70	**4000**	0.75
	5000	0.56

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

BASWA Phon Base 50mm on massive ceilings



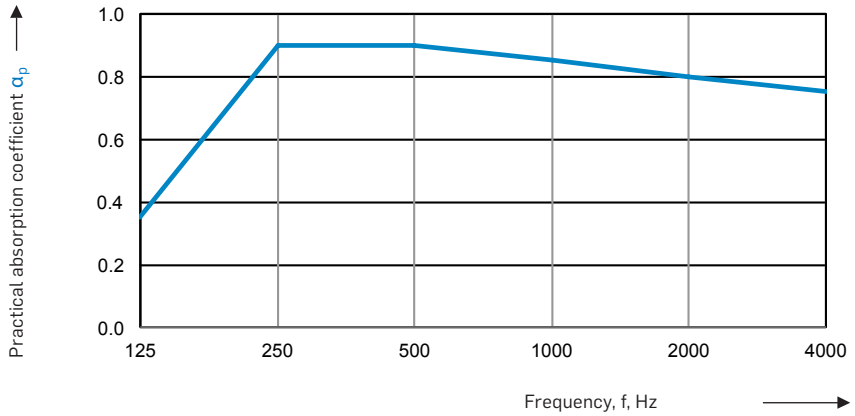
according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.85** Sound absorption class **B**

evaluated according to **ASTM C423-09a**
Noise Reduction Coefficient **NRC = 0.85**
Sound Absorption Average **SAA = 0.85**

α_p	frequency f, [Hz]	α_s
	100	0.16
0.20	**125**	0.21
	160	0.29
	200	0.53
0.80	**250**	0.84
	315	0.96
	400	0.94
0.95	**500**	0.96
	630	0.93
	800	0.90
0.85	**1000**	0.86
	1250	0.81
	1600	0.81
0.80	**2000**	0.79
	2500	0.78
	3150	0.74
0.75	**4000**	0.73
	5000	0.71

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

BASWA Phon Base 70mm on massive ceilings



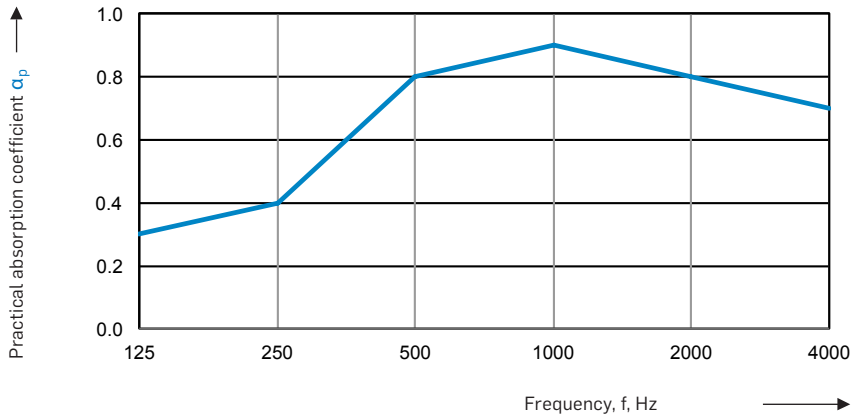
according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.85 (L)** Sound absorption class **B**

evaluated according to **ASTM C423-09a**
Noise Reduction Coefficient **NRC = 0.85**
Sound Absorption Average **SAA = 0.85**

α_p	frequency f, [Hz]	α_s
	100	0.26
0.35	**125**	0.33
	160	0.43
	200	0.79
0.90	**250**	0.92
	315	0.97
	400	0.92
0.90	**500**	0.92
	630	0.88
	800	0.85
0.85	**1000**	0.82
	1250	0.81
	1600	0.82
0.80	**2000**	0.81
	2500	0.78
	3150	0.76
0.75	**4000**	0.74
	5000	0.76

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

BASWA Phon Base 30mm suspension, 200mm



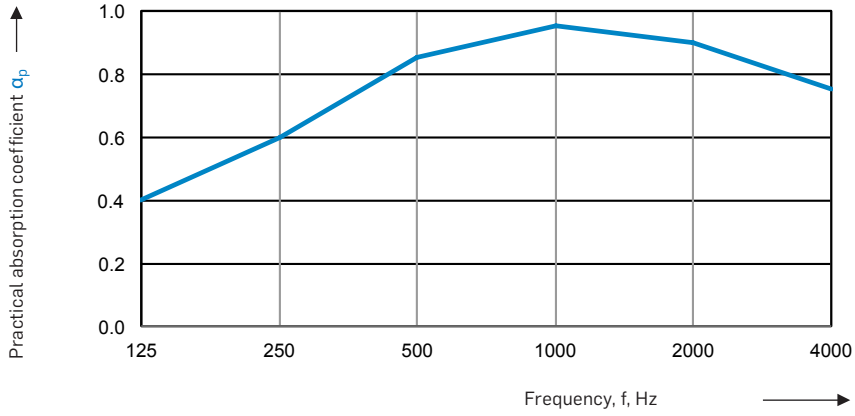
according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.70** Sound absorption class **C**

evaluated according to **ASTM C423-09a**
Noise Reduction Coefficient **NRC = 0.75**
Sound Absorption Average **SAA = 0.75**

α_p	frequency f, [Hz]	α_s
	100	0.27
0.30	**125**	0.25
	160	0.32
	200	0.36
0.40	**250**	0.41
	315	0.43
	400	0.68
0.80	**500**	0.85
	630	0.89
	800	0.90
0.90	**1000**	0.91
	1250	0.87
	1600	0.85
0.80	**2000**	0.78
	2500	0.77
	3150	0.74
0.70	**4000**	0.72
	5000	0.71

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

BASWA Phon Base 40mm suspension, 200mm



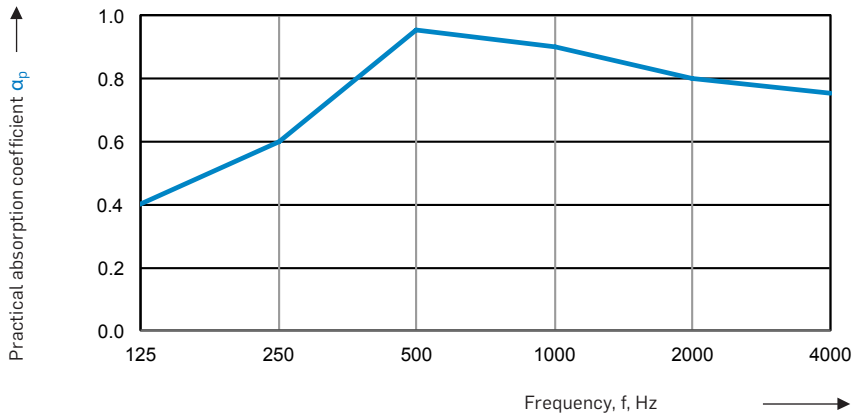
according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.85** Sound absorption class **B**

evaluated according to **ASTM C423-09a**
Noise Reduction Coefficient **NRC = 0.80**
Sound Absorption Average **SAA = 0.85**

α_p	frequency f, [Hz]	α_s
	100	0.36
0.40	**125**	0.37
	160	0.54
	200	0.58
0.60	**250**	0.62
	315	0.65
	400	0.83
0.85	**500**	0.90
	630	0.88
	800	0.99
0.95	**1000**	0.91
	1250	1.00
	1600	0.92
0.90	**2000**	0.84
	2500	0.92
	3150	0.94
0.75	**4000**	0.73
	5000	0.53

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

BASWA Phon Base 50mm suspension, 200mm



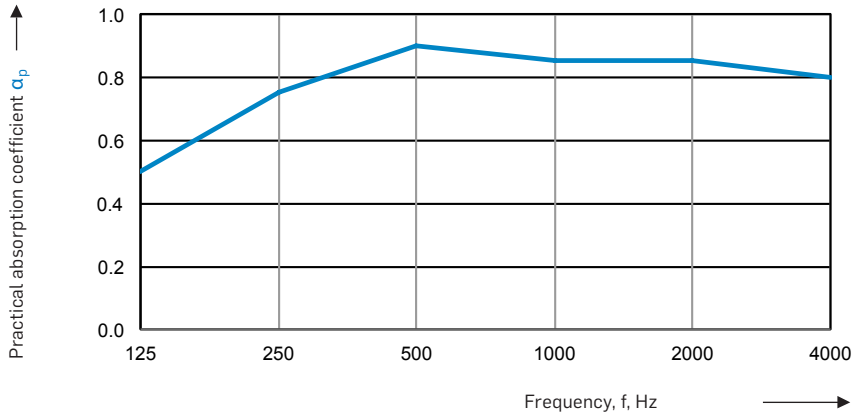
according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.85** Sound absorption class **B**

evaluated according to **ASTM C423 - 09a**
Noise Reduction Coefficient **NRC = 0.80**
Sound Absorption Average **SAA = 0.85**

α_p	frequency f, [Hz]	α_s
	100	0.29
0.50	**125**	0.39
	160	0.49
	200	0.44
0.60	**250**	0.55
	315	0.87
	400	0.97
0.95	**500**	0.95
	630	0.96
	800	0.96
0.90	**1000**	0.93
	1250	0.88
	1600	0.85
0.80	**2000**	0.82
	2500	0.77
	3150	0.78
0.75	**4000**	0.75
	5000	0.74

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

BASWA Phon Base 70mm suspension, 200mm



according to **ISO 11654:**
Weighted sound absorption coefficient
α_w = **0.90** Sound absorption class **A**

evaluated according to **ASTM C423-09a**
Noise Reduction Coefficient **NRC = 0.85**
Sound Absorption Average **SAA = 0.85**

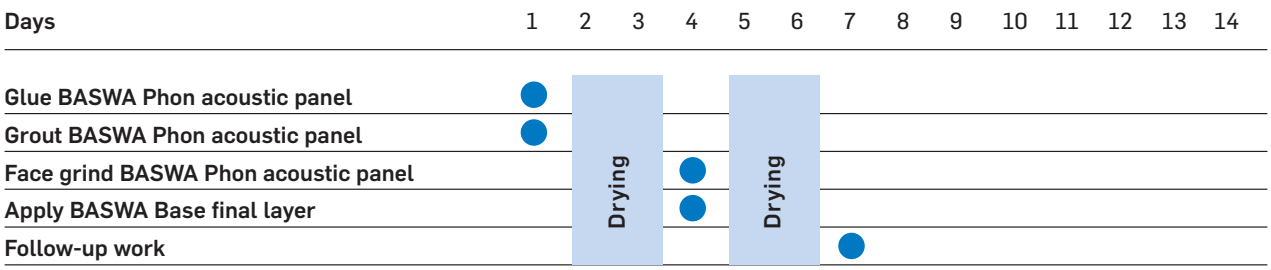
α_p	frequency f, [Hz]	α_s
	100	0.37
0.50	**125**	0.52
	160	0.56
	200	0.56
0.75	**250**	0.76
	315	0.94
	400	0.94
0.90	**500**	0.92
	630	0.91
	800	0.87
0.85	**1000**	0.88
	1250	0.87
	1600	0.86
0.85	**2000**	0.83
	2500	0.82
	3150	0.82
0.80	**4000**	0.79
	5000	0.78

Sound absorption coefficient α_s according to ISO-Norm DIN EN ISO 20354

8 Installation time

The installation time given assumes a work group of three to four persons and a ceiling size of 80–100 m². The drying times of BASWA Phon jointing and coating materials 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%.

BASWA Phon Base



9 Surface protection / Cleaning / Repairs

See BASWA planning documents
www.baswa.com

10 Legal notice / Disclaimer

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