

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

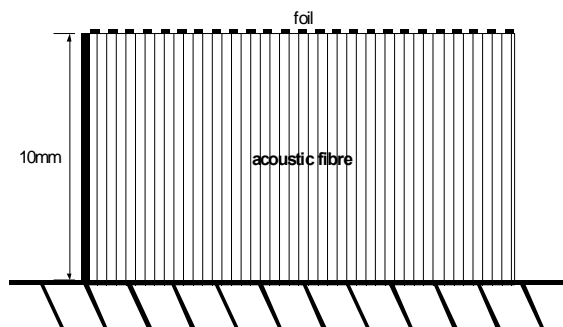
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

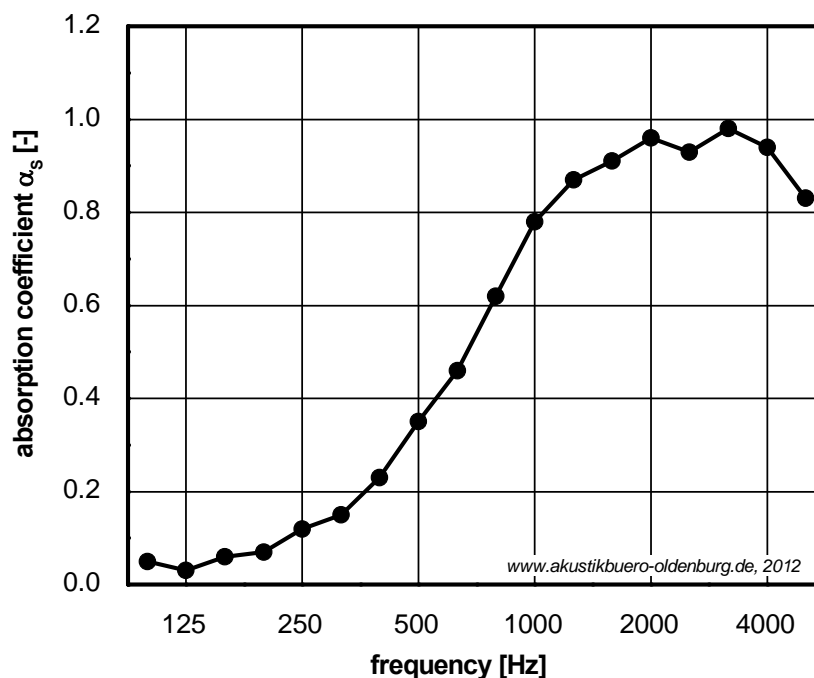
Assembly:

- BARRISOL® Artolis FC
- 10 mm distance to the floor
- 10 mm molleton BA T1600
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.05
125	0.03
160	0.06
200	0.07
250	0.12
315	0.15
400	0.23
500	0.35
630	0.46
800	0.62
1000	0.78
1250	0.87
1600	0.91
2000	0.96
2500	0.93
3150	0.98
4000	0.94
5000	0.83



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.05
250	0.10
500	0.35
1000	0.75
2000	0.95
4000	0.90

NRC = 0.55
SAA = 0.54
 $\alpha_w = 0.35$ (MH)
Sound Absorption Class D

Rev. chamber: ITAP GmbH
Date: 26.10.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 15°C
Humidity: 57 %



Akustikbüro Oldenburg

Dr. Christian Nocke

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Oldenburg, November 19th, 2012

Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

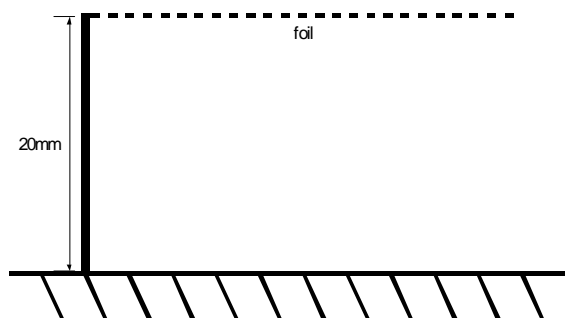
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

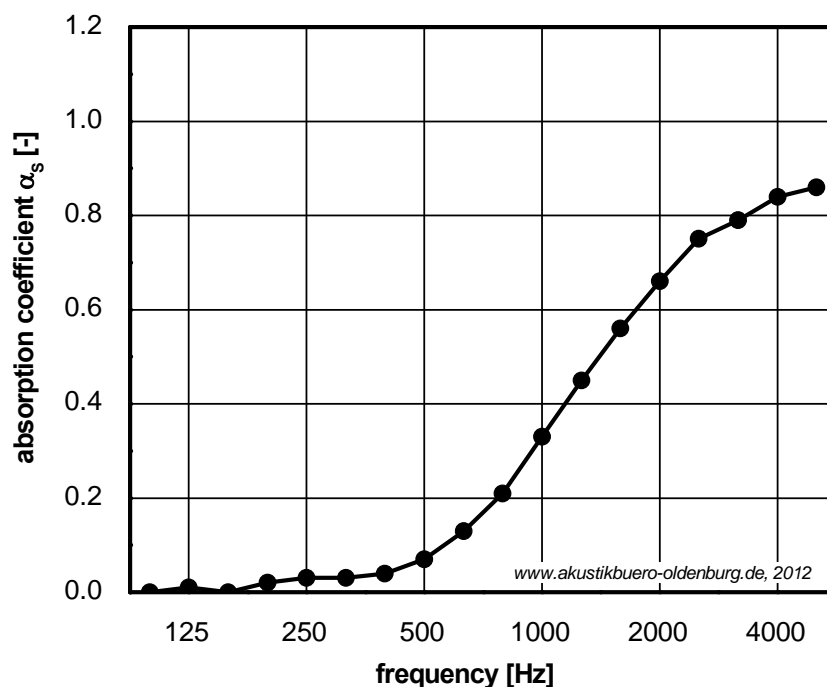
Assembly:

- BARRISOL® Artolis FC
- 20 mm distance to the floor
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.00
125	0.01
160	0.00
200	0.02
250	0.03
315	0.03
400	0.04
500	0.07
630	0.13
800	0.21
1000	0.33
1250	0.45
1600	0.56
2000	0.66
2500	0.75
3150	0.79
4000	0.84
5000	0.86



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.00
250	0.05
500	0.10
1000	0.35
2000	0.65
4000	0.85

NRC = 0.25
SAA = 0.27
 $\alpha_w = 0.20$ (H)
Sound Absorption Class E

Rev. chamber: ITAP GmbH
Date: 25.10.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 16°C
Humidity: 70 %



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Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

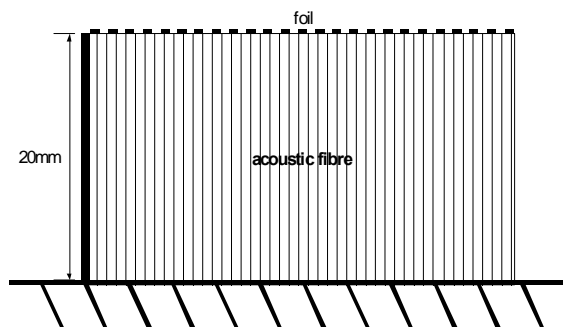
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

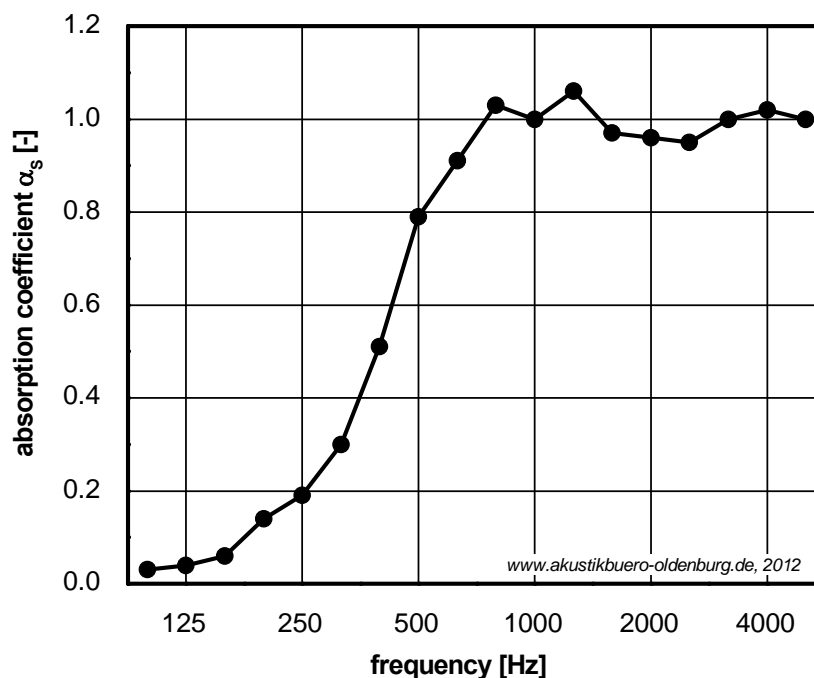
Assembly:

- BARRISOL® Artolis FC
- 20 mm distance to the floor
- 20 mm mineral wool Domisol LR 22mm A1
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.03
125	0.04
160	0.06
200	0.14
250	0.19
315	0.30
400	0.51
500	0.79
630	0.91
800	1.03
1000	1.00
1250	1.06
1600	0.97
2000	0.96
2500	0.95
3150	1.00
4000	1.02
5000	1.00



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.05
250	0.20
500	0.75
1000	1.00
2000	0.95
4000	1.00

NRC = 0.75

SAA = 0.73

$\alpha_w = 0.50$ (MH)

Sound Absorption Class D

Rev. chamber: ITAP GmbH
Date: 25.10.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 16°C
Humidity: 70 %



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Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

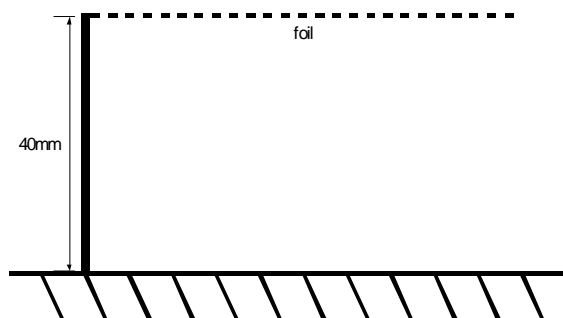
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

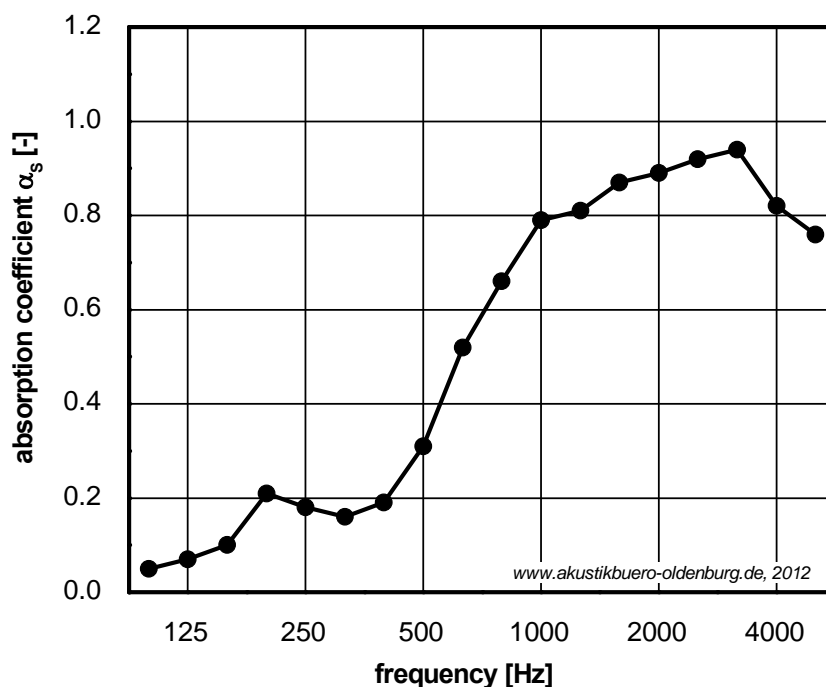
Assembly:

- BARRISOL® Artolis FC
- 40 mm distance to the floor
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.05
125	0.07
160	0.10
200	0.21
250	0.18
315	0.16
400	0.19
500	0.31
630	0.52
800	0.66
1000	0.79
1250	0.81
1600	0.87
2000	0.89
2500	0.92
3150	0.94
4000	0.82
5000	0.76



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.05
250	0.20
500	0.35
1000	0.75
2000	0.90
4000	0.85

NRC = 0.55
SAA = 0.54
 $\alpha_w = 0.40$ (MH)
Sound Absorption Class D

Rev. chamber: ITAP GmbH
Date: 25.10.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 16°C
Humidity: 70 %



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Signature:

Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

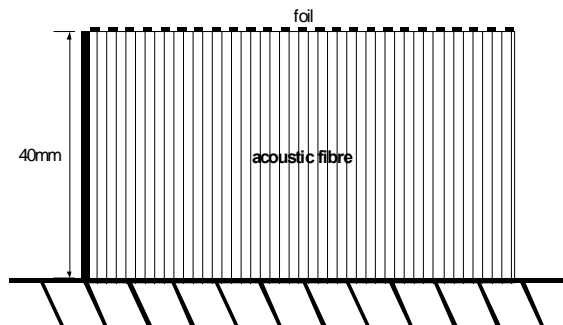
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

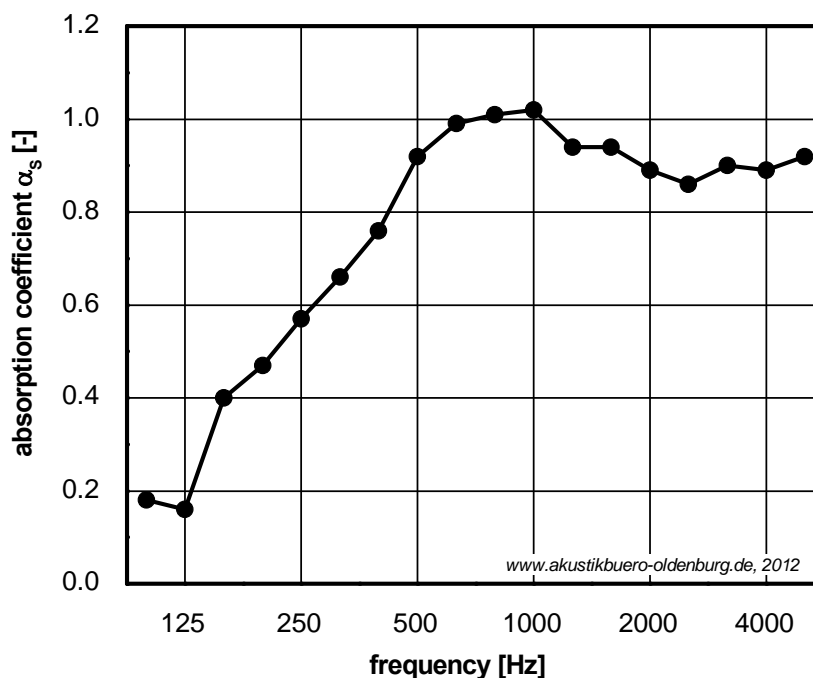
Assembly:

- BARRISOL® Artolis FC
- 40 mm distance to the floor
- 40 mm mineral wool PB 38
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.18
125	0.16
160	0.40
200	0.47
250	0.57
315	0.66
400	0.76
500	0.92
630	0.99
800	1.01
1000	1.02
1250	0.94
1600	0.94
2000	0.89
2500	0.86
3150	0.90
4000	0.89
5000	0.92



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.25
250	0.55
500	0.90
1000	1.00
2000	0.90
4000	0.90

NRC = 0.85

SAA = 0.84

$\alpha_w = 0.85$

Sound Absorption Class B

Rev. chamber: ITAP GmbH
Date: 25.10.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 16°C
Humidity: 70 %



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Sound absorption coefficient according to ISO 354, DIN EN ISO 11654, ASTM C 423

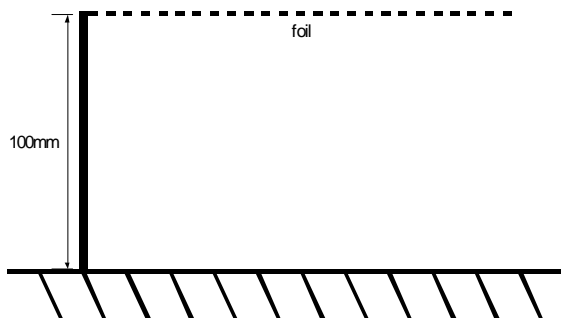
On behalf of: Normalu S.A., Rue du Sipes, 68680 Kembs

Object:

BARRISOL® ceiling

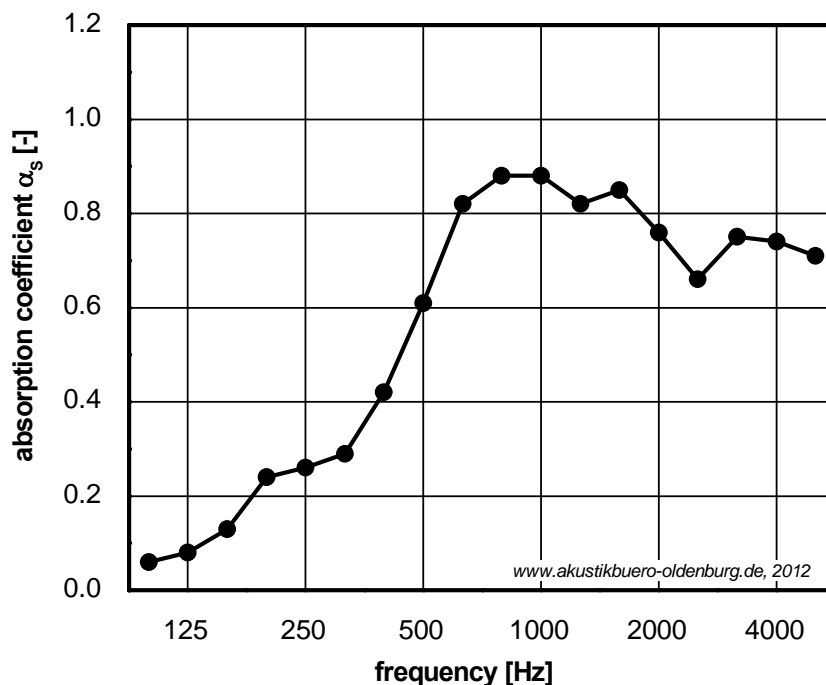
Assembly:

- BARRISOL® Artolis FC
- 100 mm distance to the floor
- Sides tightly closed



Sound absorption coefficient α_s according to DIN EN ISO 354

Frequency [Hz]	α_s [-]
100	0.06
125	0.08
160	0.13
200	0.24
250	0.26
315	0.29
400	0.42
500	0.61
630	0.82
800	0.88
1000	0.88
1250	0.82
1600	0.85
2000	0.76
2500	0.66
3150	0.75
4000	0.74
5000	0.71



Practical Sound absorption coefficient α_p according to DIN EN ISO 11654

Frequency [Hz]	α_p [-]
125	0.10
250	0.25
500	0.60
1000	0.85
2000	0.75
4000	0.75

NRC = 0.65
SAA = 0.62
 $\alpha_w = 0.55$ (MH)
Sound Absorption Class D

Rev. chamber: ITAP GmbH
Date: 25.10.2012
Volume: 200 m³
Specimen size: 12 m²
Temperature: 16°C
Humidity: 70 %



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Dr. Christian Nocke

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Oldenburg, November 19th, 2012

Signature: