Coeficiente de absorción acústica ponderado α_w según EN ISO 11654

deNoise PRO 2850

Cortina acústica, **doble capa** · código de producto 316

COEFICIENTE DE ABSORCIÓN ACÚSTICA PONDERADO

$\alpha_w = 1{,}00$

Clase de absorción

A

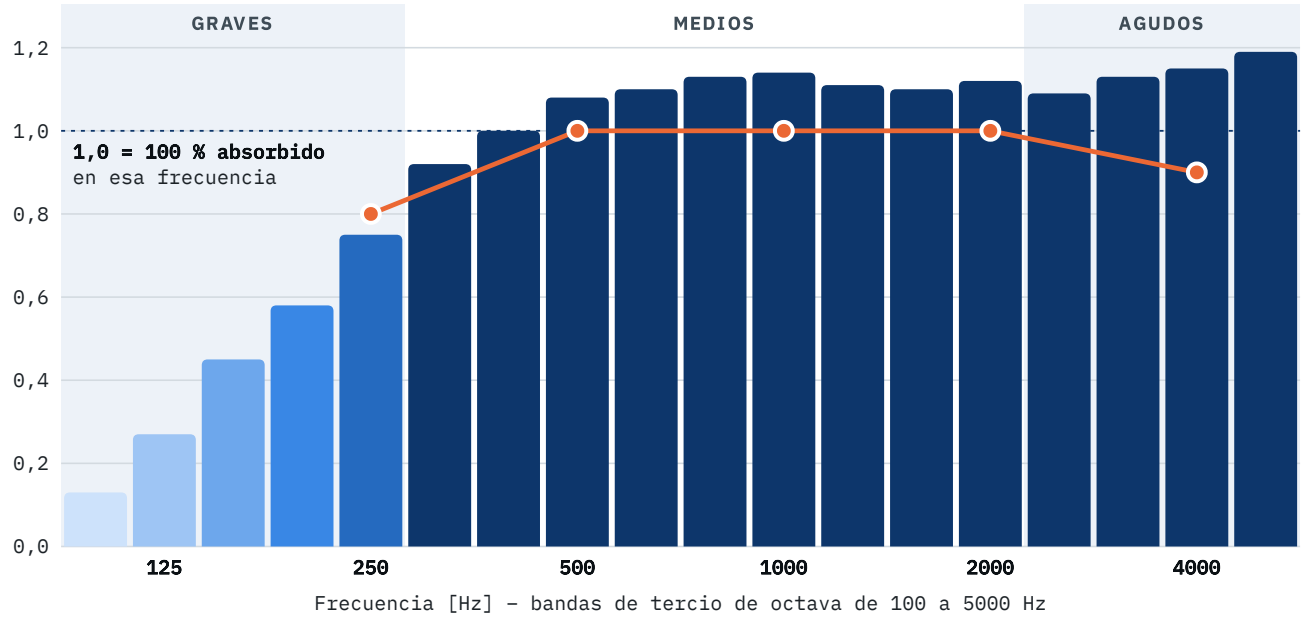
según EN ISO 11654

1. Coeficientes de absorción medidos en bandas de tercio de octava

F [HZ]	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
α_s	0,13	0,27	0,45	0,58	0,75	0,92	1,00	1,08	1,10	1,13	1,14	1,11	1,10	1,12	1,09	1,13	1,15	1,19

Fuente de los valores: informe RAL™-A19-502, página 5 (anexo de este documento).

2. Absorción por frecuencia



coeficiente de absorción medido α_s (cuanto más oscuro, más absorbe)

curva de referencia ISO 11654 para $\alpha_w = 1{,}00$

3. Clase de absorción acústica

E	0,15–0,25	**D**	0,30–0,55	**C**	0,60–0,75	**B**	0,80–0,85	**A**	0,90–1,00

▲ deNoise PRO 2850: $\alpha_w = 1{,}00$ → clase A

4. Cálculo según EN ISO 11654

OCTAVA [HZ]	A_S TERCIOS	MEDIA	A_P	CURVA REF.	DESVIACIÓN DESFAVORABLE
125	0,13 · 0,27 · 0,45	0,283	**0,30**	–	–
250	0,58 · 0,75 · 0,92	0,750	**0,75**	0,80	0,05
500	1,00 · 1,08 · 1,10	1,060	**1,00***	1,00	0,00
1000	1,13 · 1,14 · 1,11	1,127	**1,00***	1,00	0,00
2000	1,10 · 1,12 · 1,09	1,103	**1,00***	1,00	0,00
4000	1,13 · 1,15 · 1,19	1,157	**1,00***	0,90	0,00
Suma de desviaciones desfavorables (250–4000 Hz) — límite de la norma ≤ 0,10					**0,05**

* Media redondeada a 0,05 y limitada a 1,00 según la norma. La curva de referencia (0,80 / 1,00 / 1,00 / 1,00 / 0,90) se desplaza en pasos de 0,05 hacia valores más bajos hasta que la suma de desviaciones desfavorables no supere 0,10. Con el valor 1,00 en la banda de 500 Hz la suma es 0,05, por lo que α_w = 1,00. No se indica indicador de forma (L, M, H): ningún α_p supera la curva en 0,25 o más. Según el anexo B de la norma, α_w 0,90–1,00 corresponde a la clase de absorción A.

5. Medición de laboratorio de referencia

Laboratorio	Riverbank Acoustical Laboratories, 1512 S Batavia Ave, Geneva, IL, EE. UU. — acreditación NVLAP (Lab Code 100227-0), ISO/IEC 17025:2017
Informe	RAL™-A19-502, medición 06/12/2019, emitido 08/01/2020
Método	ASTM C423-17, cámara reverberante 291,98 m³, 21,4 °C, 55 % HR
Montaje	tipo G-115 según ASTM E795-16 (modificado): dos capas colgadas con una separación de 76 mm, a 76 mm de la pared de la cámara, bordes sin sellar
Muestra	Acoustic Blanket, Producer's Choice (VB-77G), fabricante Vocal Booth To Go, 2 × 2032 × 2692 mm
Desviación de la norma	superficie de la muestra 5,47 m² (ASTM C423 exige mín. 5,57 m²) — indicado en el informe

6. Aviso

Este documento lo emitió VocalBoothToGo-EU s.r.o. No es un informe de laboratorio y Riverbank Acoustical Laboratories no es su autor. El valor α_w se calcula según EN ISO 11654 a partir de los coeficientes de absorción por tercios de octava que el laboratorio midió con el método ASTM C423, análogo a EN ISO 354 (cámara reverberante).

Los resultados se aplican a la muestra ensayada y al montaje indicado. El informe original del laboratorio se adjunta sin cambios como anexo.

Anexo: informe de Riverbank Acoustical Laboratories RAL™-A19-502 (9 páginas, original).

Elaborado por: VocalBoothToGo-EU s.r.o.

Fecha: 28/09/2026

RIVERBANK ACOUSTICAL LABORATORIES

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Test Report

SPONSOR: **Vocal Booth To Go**
Frederick, MD

Sound Absorption
RAL™-A19-502

CONDUCTED: 2019-12-06

ON: Acoustic Blanket, Producer's Choice - dual layer (Modified Type G-115 Mounting, specimen undersized)

TEST METHODOLOGY

Riverbank Acoustical Laboratories™ is accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) as an ISO 17025:2017 Laboratory (NVLAP Lab Code: 100227-0) and for this test procedure. The test reported in this document conformed explicitly with ASTM C423-17: "Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method," with the single exception that the specimen area of 5.47 m^2 was less than the minimum area of 5.57 m^2 specified in Section 9.1.1 of the standard. Refer to the mounting description on Page 2 for details. The specimen mounting was performed according to the Type G Mounting described in Section 12 of ASTM E795-16: "Standard Practices for Mounting Test Specimens During Sound Absorption Tests," with the single exception that the top edge of the specimen was not closed off. A description of the measurement procedure and room specifications are available upon request. The results presented in this report apply to the sample as received from the test sponsor.

INFORMATION PROVIDED BY SPONSOR

The test specimen was designated by the sponsor as Acoustic Blanket, Producer's Choice - dual layer (Modified Type G-115 Mounting, specimen undersized). The following nominal product information was provided by the sponsor prior to testing. The accuracy of such sponsor-provided information can affect the validity of the test results.

Product Under Test

Trade Name:	Acoustic Blanket, Producer's Choice
Material ID:	VB-77G
Manufacturer:	Vocal Booth To Go

SPECIMEN MEASUREMENTS & TEST CONDITIONS

Through a full external visual inspection performed on the test specimen, Riverbank personnel verified the following information:

Test Specimen

Material:	Quilted blanket
Dimensions:	2 @ 2032 mm (80 in.) x 2692.4 mm (106 in.)
Thickness:	7.26 mm (0.286 in.) each
Overall Weight:	12.02 kg (26.5 lbs)

Note: The specimen was cut to the given dimensions from larger samples. The cut edges of the specimen material were sealed with duct tape.

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Overall Specimen Properties

Size:	2.03 m (80.0 in) wide by 2.69 m (106.0 in) long
Thickness:	0.09 m (3.572 in)
Weight:	12.02 kg (26.5 lbs)
Mass per Unit Area:	2.2 kg/m² (0.45 lbs/ft²)
Calculation Area:	5.471 m² (58.89 ft²)

Test Environment

Room Volume:	291.98 m³
Temperature:	21.4 °C ± 0.1 °C (Requirement: ≥ 10 °C and ≤ 5 °C change)
Relative Humidity:	54.95 % ± 1.1 % (Requirement: ≥ 40 % and ≤ 5 % change)
Barometric Pressure:	99.6 kPa (Requirement not defined)

MOUNTING METHOD

Modified Type G-115 Mounting: The test specimen was hung using a stand provided by the test sponsor. The specimen was cut to the dimensions given above to accommodate the limited height of the stand. An array of 76.2 mm (3 in.) wide wooden spacers was used to space the specimen layers approximately 76.2 mm (3 in.) apart. The hung specimen was placed in the test chamber with a 76 mm (3.0 in.) wide gap between the vertical test surface and the nearest layer of sample material. The distance between the vertical test surface and the centerline of the specimen was approximately 114 mm (4.5 in.). The numeral suffix in the mounting designation is the distance in millimeters between the vertical test surface and the centerline of the test specimen, rounded to the nearest integer multiple of 5. Perimeter edges were left unsealed. All modifications to the standard mounting practice were intended to better represent the typical field condition, as described by the test sponsor.

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Figure 1 – Specimen mounted in test chamber



Figure 2 – Detail of single layer of specimen material

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Figure 3 – Detail of hanging method, spacer

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2019-12-06

TEST RESULTS

Specimen total absorption and absorption coefficient are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages.

1/3 Octave Center Frequency (Hz)	Total Absorption (m^2)	Total Absorption (Sabins)	Absorption Coefficient
100	0.70	7.57	0.13
** 125	1.50	16.13	0.27
160	2.49	26.75	0.45
200	3.16	34.00	0.58
** 250	4.12	44.34	0.75
315	5.05	54.38	0.92
400	5.47	58.84	1.00
** 500	5.91	63.57	1.08
630	6.04	65.02	1.10
800	6.18	66.48	1.13
** 1000	6.26	67.41	1.14
1250	6.08	65.40	1.11
1600	6.03	64.89	1.10
** 2000	6.13	65.96	1.12
2500	5.97	64.24	1.09
3150	6.18	66.47	1.13
** 4000	6.31	67.93	1.15
5000	6.51	70.11	1.19

SAA = 1.01
NRC = 1.00

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TEST RESULTS (continued)

The sound absorption average (SAA) is defined in ASTM C423-17 Section 3.1.1 as the arithmetic average of the sound absorption coefficients of a material for the twelve one-third octave bands from 200 Hz through 2500 Hz, inclusive, rounded to the nearest integer multiple of 0.01.

The noise reduction coefficient (NRC) is defined from previous versions of ASTM C423 as the arithmetic average of the sound absorption coefficients at 250 Hz, 500 Hz, 1000 Hz, and 2000 Hz, rounded to the nearest integer multiple of 0.05.

Tested by _____
Marc Sciaky
Senior Experimentalist

Report by _____
Malcolm Kelly
Acoustical Test Engineer

Approved by _____
Eric P. Wolfram
Laboratory Manager

Digitally signed by
Eric P Wolfram
Location: Geneva, IL
Date: 2020.01.08
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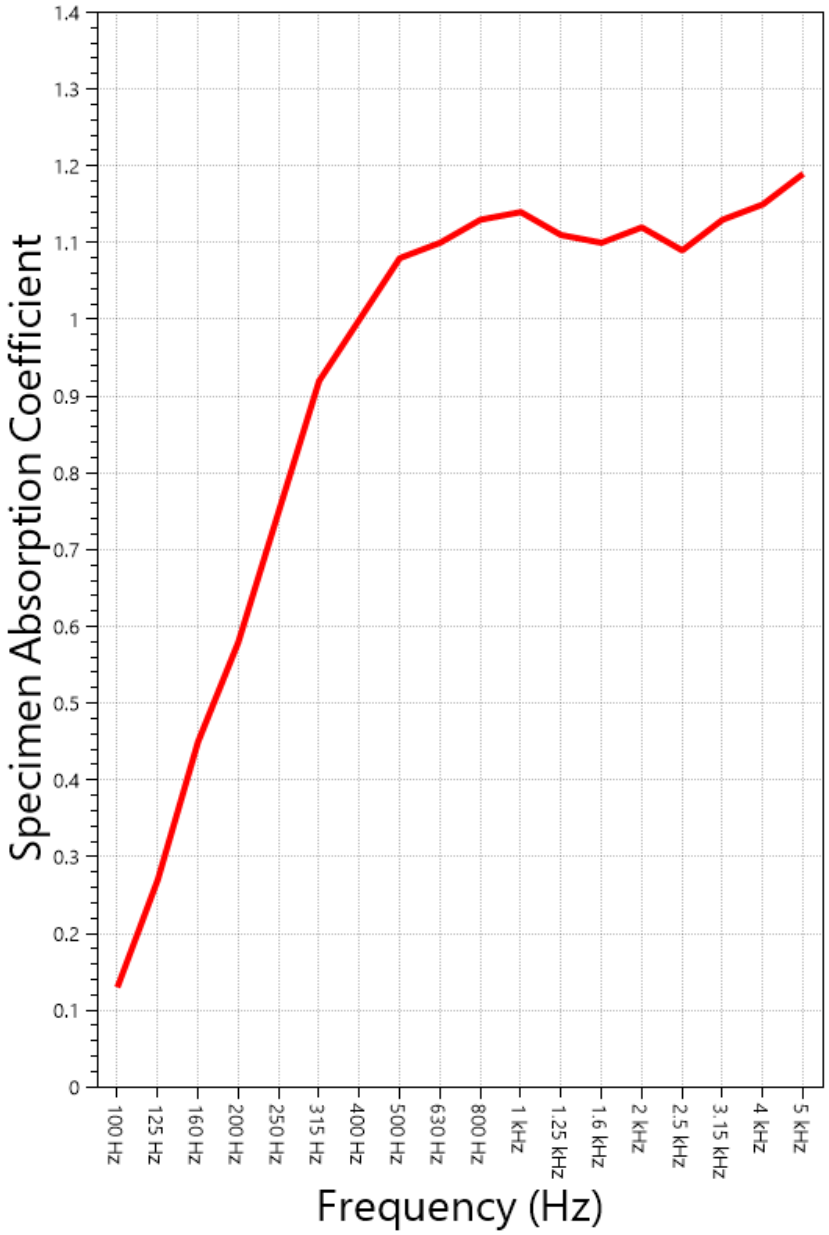
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RAL™-A19-502

SOUND ABSORPTION REPORT

Acoustic Blanket, Producer's Choice - dual layer
(Modified Type G-115 Mounting, specimen undersized)



SAA = 1.01
NRC = 1.00

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APPENDIX A: Extended Frequency Range Data

Specimen: Acoustic Blanket, Producer's Choice - dual layer (Modified Type G-115 Mounting, specimen undersized) (See Full Report)

The following non-accredited data were obtained in accordance with ASTM C423-17, but extend beyond the defined frequency range of 100Hz to 5,000Hz. These unofficial results are representative of the RAL test environment only and intended for research & comparison purposes.

1/3 Octave Band Center Frequency (Hz)	**Total Absorption** (Sabins)	**Absorption Coefficient**
31.5	2.13	0.04
40	3.38	0.06
50	-4.16	-0.07
63	-8.70	-0.15
80	2.21	0.04
100	7.57	0.13
125	16.13	0.27
160	26.75	0.45
200	34.00	0.58
250	44.34	0.75
315	54.38	0.92
400	58.84	1.00
500	63.57	1.08
630	65.02	1.10
800	66.48	1.13
1000	67.41	1.14
1250	65.40	1.11
1600	64.89	1.10
2000	65.96	1.12
2500	64.24	1.09
3150	66.47	1.13
4000	67.93	1.15
5000	70.11	1.19
6300	68.63	1.17
8000	72.24	1.23
10000	75.45	1.28
12500	74.59	1.27

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APPENDIX B: Instruments of Traceability

Specimen: Acoustic Blanket, Producer's Choice - dual layer (Modified Type G-115 Mounting, specimen undersized) (See Full Report)

Description	Model	Serial Number	Date of Certification	Calibration Due
System 1	Type 3160-A-042	3160-106968	2019-06-25	2020-06-25
Bruel & Kjaer Mic And Preamp A	Type 4943-B-001	2311428	2019-09-27	2020-09-27
Bruel & Kjaer Pistonphone	Type 4228	2781248	2019-08-09	2020-08-09
Omega Digital Temp., Humid. And Pressure Recorder	OM-CP-PRHTemp2000	P97844	2019-02-08	2020-02-08

APPENDIX C: Revisions to Original Test Report

Specimen: Acoustic Blanket, Producer's Choice - dual layer (Modified Type G-115 Mounting, specimen undersized) (See Full Report)

Date	Revision
2020-01-08	Original report issued

END

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