

Hearing Protective Device Test Report Number Q4142A Revision 0

Vicsa Colombia

Attn: Mr. Alexander Vasquez

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Parque Empresarial Celta

Funza, Cundinamarca, Colombia

Date of Report: 8/29/16

Date of testing: 8/8/16-8/26/16

Date of Sample Receipt: 8/4/16



Lab Code 100427-0

Attenuation measurements have been performed according to the American National Standards Institute (ANSI) Specifications, ANSI S3.19-1974, using the experimenter-fit protocol, on the Vicsa Colombia Tapon Auditivo PVC Reflex EP-T06C En Caja reusable insert-type hearing protector (test ID Q4142A). The specified threshold measurement data were obtained using ten normally-hearing listeners, six male and four female. These listeners were selected from a standby group of about 35 volunteers who regularly serve as listeners for measurements of this kind.

The measurements were made in a room designed for this purpose. All acoustic characteristics of the room meet the requirements outlined in ANSI S3.19-1974. The ambient noise levels in this room are below the limits specified in ANSI S3.19-1974, and open ear thresholds are used on a continuing basis to monitor the background noise levels. An automatic recording attenuator was used to record both open and occluded ear thresholds.

Each of ten subjects was tested three times at each of nine test frequencies. The attached Tables show grand mean attenuation values in decibels (dB) for each test signal along with group attenuation values. Standard deviations (S.D.) for the 30 different attenuation determinations for each test signal are also given. The results presented in this report pertain to the samples tested only.

Michael & Associates is accredited by the National Institute of Standards and Technology (NIST) National Laboratory Accreditation Program (NVLAP) for tests performed according to ANSI S3.19-1974, ANSI S12.6-2008, AS/NZ S1270:2002 and EN352 parts 1-8. These accreditation criteria encompass the requirements of international standard ISO 17025. This report may only be reproduced or transmitted electronically in its' entirety. This report shall not be used to claim product endorsement by NIST, NVLAP or by any agency of the U.S. Government. All measurement equipment are calibrated with instrumentation traceable to the NIST.

Use these laboratory-derived attenuation data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.


Kevin Michael, Ph.D.
President

8/29/16
Date

**Individual and Summary Attenuation Data for
Hearing Protective Devices**

Test Method: ANSI S3.19-1974

Position: Insert

Manufacturer: Vicsa Colombia

Date: 8/29/16

Model: Tapon Auditivo PVC Reflex EP-T06C En Caja

Test ID # Q4142A

FREQUENCY IN HERTZ

SUBJECT	125	250	500	1000	2000	3150	4000	6300	8000
1	34	29	36	36	37	38	39	43	44
	29	25	34	30	34	40	42	44	44
	26	23	31	28	33	38	36	39	41
2	35	25	31	37	37	40	38	40	43
	34	28	29	37	36	44	40	41	47
	33	28	33	39	40	41	39	38	42
3	37	33	37	27	31	32	37	48	47
	38	31	38	32	29	38	44	50	46
	35	29	36	32	30	35	42	48	43
4	37	31	38	30	32	34	41	45	44
	36	37	41	37	34	38	37	46	43
	38	35	45	37	33	32	36	46	46
5	35	34	41	33	32	34	32	39	37
	34	31	36	32	30	34	33	38	36
	36	30	41	33	29	33	31	35	34
6	39	31	34	33	37	44	34	37	47
	36	31	36	34	38	41	31	35	49
	38	30	35	36	37	40	33	35	46
7	29	27	37	36	33	43	39	41	47
	36	30	36	35	34	40	39	40	48
	28	26	34	38	32	41	42	37	50
8	31	24	27	30	35	35	43	43	48
	31	27	28	30	31	32	40	44	46
	31	25	28	30	30	34	42	44	49
9	36	31	41	44	41	43	39	40	43
	35	29	36	41	38	43	41	40	44
	37	28	36	35	41	44	41	40	45
10	26	27	32	33	32	36	36	36	39
	26	26	33	34	33	37	38	37	40
	27	26	30	34	32	35	37	38	36
MEANS	33.4	28.8	34.9	34.1	34.0	37.9	38.0	40.9	43.8
STD. DEV.	4.0	3.3	4.3	3.7	3.5	3.9	3.6	4.1	4.1

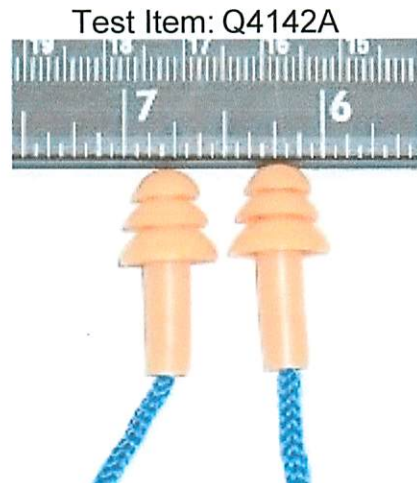
NRR = 26 dB

Use these laboratory-derived data for comparison purposes only. The amount of protection afforded in field use is often significantly lower depending on how the protectors are fitted and worn.

Manufacturer: Vicsa Colombia Date: 8/29/16
 Model: Tapon Auditivo PVC Reflex EP-T06C En Caja Test ID: Q4142A
 Position: Insert

Measurements were made according to American National Standards Institute Specifications ANSI S3.19-1974.

Center Frequency in Hz	Mean Attenuation in dB	Group Attenuation in dB	Standard Deviation in dB
125	33.4	62.2	4.0
250	28.8		3.3
500	34.9		4.3
1000	34.1		3.7
2000	34.0	179.0	3.5
3150	37.9		3.9
4000	38.0		3.6
6300	40.9	84.7	4.1
8000	43.8		4.1



These data were obtained through measurements made at the laboratories of Michael & Associates, Inc., State College, PA , USA. Michael & Associates, Inc., is accredited to test to ANSI S3.19-1974, ANSI S12.6-2008, ANSI S12.42-2010 EN352 parts 1-8 and AS/NZ S1270:2002 by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP).


 Kevin L. Michael, Ph.D.
 President

8/29/16
 Date



CERTIFICADO IE N° 15 - 2013

EL Área de Ruido del Laboratorio de Higiene Industrial de la Asociación Chilena de Seguridad, certifica que el protector auditivo tipo tapón, **marca Steelpro, modelo EP-T06 C, reutilizable con cordón**, fue ensayado en su Laboratorio de Protección Auditiva, de acuerdo con la Norma Chilena NCh 1331/2.Of2001: Protectores auditivos - Parte 2: Requisitos y métodos de ensayos para tapones auditivos.

La certificación de este producto tiene una validez de 3 años, mientras el fabricante del producto mantenga su configuración y materiales utilizados originalmente al momento de los ensayos.

Los resultados obtenidos de los ensayos acústicos efectuados, corresponden a:

Tabla de Atenuación Sonora Promedio y desviación estándar (NCh 1331/5) Tapón auditivo marca Steelpro, modelo EP-T06 C, reutilizable con cordón.								
Atenuación sonora (dB)	Frecuencias centrales de las bandas de ensayo (Hz)							Valores H,M,L, SNR
	125	250	500	1000	2000	4000	8000	* H ₈₄ : 27 dB
Promedio (mf)	24.9	24.6	30.2	26.0	30.6	36.1	45.2	* M ₈₄ : 24 dB
Desviación estándar (sf)	3.3	2.6	3.4	4.0	4.7	6.8	4.6	* L ₈₄ : 23 dB
*Índice APV ($\alpha=1$) (dB)	21.6	22.0	26.8	22.0	25.9	29.3	40.6	* SNR ₈₄ : 27 dB

* Cálculo realizado de acuerdo a NCh 1331/6.

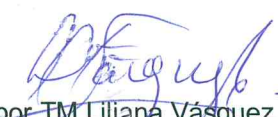
H = Índice de atenuación en frecuencias altas.

L = Índice de atenuación en frecuencias bajas.

M = Índice de atenuación en frecuencias medias.

SNR = Índice de reducción estimada del nivel de ruido

NOTA: Los valores de Atenuación Sonora de cualquier protector auditivo son obtenidos en condiciones de laboratorio, por lo que el uso de estos elementos de protección personal, debe estar acompañado de un constante entrenamiento y supervisión. Para que los protectores auditivos sean efectivos, se deben utilizar permanentemente durante todo el tiempo de exposición a ruido y siguiendo las recomendaciones del fabricante.


Emitido por TM Liliana Vásquez L.
Área Ruido - Laboratorio Higiene Industrial

Fecha emisión certificado: Enero 29, de 2013