



**CENTRUM STAVEBNÍHO INŽENÝRSTVÍ a. s.**  
**CENTRE OF BUILDING CONSTRUCTION ENGINEERING plc.**  
workplace Zlín, K Cihelně 304, 764 32 Zlín - Louky

Testing laboratory of physical properties of materials, structures and buildings – Zlín, Testing laboratory No. 1007.1, accredited by the CAI according to ČSN EN ISO/IEC 17025:2005



## Test Report No. 293/18

**Laboratory Measurement of Airborne Sound Insulation**  
**according to ČSN EN ISO 10140-2**

**Test subject: insulating triple glass unit**  
**44.2 Thermofloat Phon/12/FL 8/12/44.2 Thermofloat Phon**

Contract No: 863 735

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Customer: **PRESS GLASS SA**  
**Nowa Wieś, ul. Kopalniana 9**  
**42-262 Poczesna**  
**Poland**

Sample accepted on: 10.07 2018

Tested on: 27.07.2018

Tested by the Building Acoustics Laboratory

Technical head of laboratory: Ing. Miroslav Figalla

Head of testing laboratory No. 1007.1:

Ing. Miroslav Figalla

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tel.: +420 577 604 168, +420 577 604 164, +420 577 604 111, tel./fax: +420 577 604 348  
fax: +420 577 104 926, e-mail: miroslav.figalla@csizlin.cz, www.csias.cz, www.csizlin.cz

A ... equivalent absorption area in the receiving room in m<sup>2</sup>.

The size of the equivalent absorption area is determined from reverberation time measured according to the ČSN ISO 3382-2 standard using the Sabine's formula

$$A = \frac{0,16 V}{T}$$

where V is the volume of the receiving room in m<sup>3</sup>,

T ... reverberation time in the receiving room in seconds.

A single-number quantity, weighted sound reduction index  $R_w$ , and spectrum adaptation terms  $C$ ,  $C_{tr}$  are determined from the values of sound reduction index  $R$  in third-octave bands 100 to 3150 Hz, using the reference curve and method according to ČSN EN ISO 717-1. Furthermore, single-number quantities according to ASTM E413-16 and ASTM E1332-16 are determined, see page 5.

## 6. Test Results

Reg. No.	Structure of Insulating glass unit	Weighted sound reduction index $R_w (C; C_{tr})$ dB
153/18	<ul style="list-style-type: none"> <li>– laminated glass 44.2 Thermofloat Phon,</li> <li>– aluminium spacer 12 mm, argon,</li> <li>– Float 8 mm,</li> <li>– aluminium spacer 12 mm, argon,</li> <li>– laminated glass 44.2 Thermofloat Phon</li> </ul>	<b>48 (-2; -7)</b>

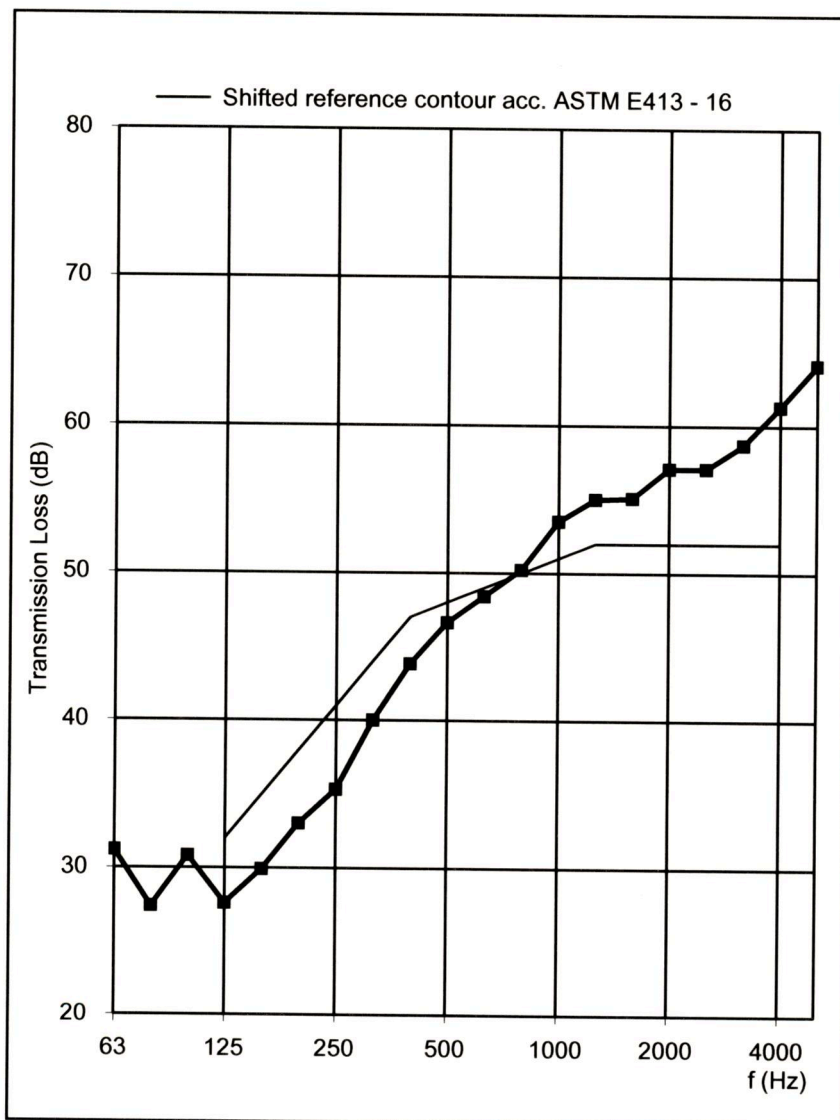
The course of sound insulation depend on the frequency and further measurement data are shown in standard measuring record on page 4.

## 7. Measurement Uncertainty

The measurement uncertainty is expressed in accordance with ČSN EN ISO 12999-1 using a reproducibility standard deviation. Standard uncertainty of the single-number quantity  $R_w$ , determined according to the mentioned standard, is 1,2 dB, expanded uncertainty is 2 dB (coverage factor  $k = 1,65$ , 90% confidence level for the two-sided test).

In charge for the test: Ing. Miroslav Figalla

## 8. Classification according to ASTM standards



Standard	Quantity	Rating
ASTM E413 – 16	Sound transmission class	STC 48
ASTM E1332 – 16	Outdoor-indoor transmission class	OITC 38

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