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## Test Report No. 411900-02

### 1 Procedure

Order.....Sound absorption according to  
EN ISO 354:2003  
Impact sound transmission according to EN ISO  
10140:2010  
Sample designation.....tempo mod350  
Order by.....Egetaepper A/S  
Date of order .....14<sup>th</sup> November 2011  
Your reference .....L. Ormstrup  
TFI reference number.....11-11-0155  
Test official at TFI.....Dipl.-Ing. Sophia Gelderblom, extension -134

### 2 Short sample description

Product type.....textile floor covering  
Type of manufacture .....tufted  
Type of surface .....loop pile  
Colouring / patterning.....with tonal effect  
Fibre composition of use surface.....not tested  
Colour .....white, light grey, dark grey  
Type of backing.....needled fleece backing

### 3 Test results

According to EN ISO 354:2003 the tested specimen of the aforementioned product has a calculated sound absorption coefficient  $\alpha_w$  of 0,25 (- - -) (annex SA).

According to EN ISO 140-8:1998 the tested specimen of the aforementioned product has an acoustical insulation from impact noise of 25 dB (annex TS).

### 4 Annexes

The individual results as well as type and extent of the tests can be found in the following annexes:

Sound Absorption	SA 411900-02
Impact Sound Insulation	TS 411900-02

The annexes marked <sup>a</sup> are based on tests accredited according to EN ISO/IEC 17025.

Aachen, 18th January 2011



Dr. Ernst Schröder

The present document is provided with a qualified electronic signature and is valid without autograph signature.

The present test report is established to the best of our knowledge. Only the entire report shall be reproduced. Under no circumstances, extracts shall be used. Furthermore, we apply the "General Terms and Conditions for the Execution of Contracts" of the Textiles & Flooring Institute GmbH, also with regard to the order execution.

## Annex SA – Sound Absorption

### 1 Procedure

Sample designation ..... tempo mod350

TFI reference number ..... 11-11-0155

Testing period ..... 19<sup>th</sup> December 2011

The product identification characteristics can be found on the first page of the test report, respectively in annex KM.

### 2 Test method

Sound absorption according to EN ISO 354:2003

The standard describes a method to measure the sound absorption level in a room.

### 3 Remarks

Additionally, the practical and the calculated sound absorption levels according to EN ISO 11654-2:1997-07 are indicated.

The test was carried out by a subcontractor.

#### 4. Test results

Enclosure SA

### Sound absorption

ISO 354 : 2003

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Measurement of sound absorption in a reverberation room

Tested material: **article: tempo mod350**

Test room: reverberation room, Hauptstraße 133, 52 477 Alsdorf

Test area: 12,0 m<sup>2</sup>

Test method: method of reverberation room

Date of test: 19.12.2011

#### Description of the test material:

Total thickness: **7,0 mm**

Mass / area: **2,90 kg/m<sup>2</sup>**

laid loose on the floor of the reverberation room

Dimension of the test area:

length: 3,84 m

width: 3,00 m

#### Reverberation room:

Basic plan: trapezoid

Volume: 211 m<sup>3</sup>

Temperature: 20 °C

Humidity: 65 %

f / Hz	125	250	500	1000	2000	4000
$\alpha_s$	0,00	0,02	0,15	0,37	0,30	0,32

Surface areas of reverberation room: 213 m<sup>2</sup>

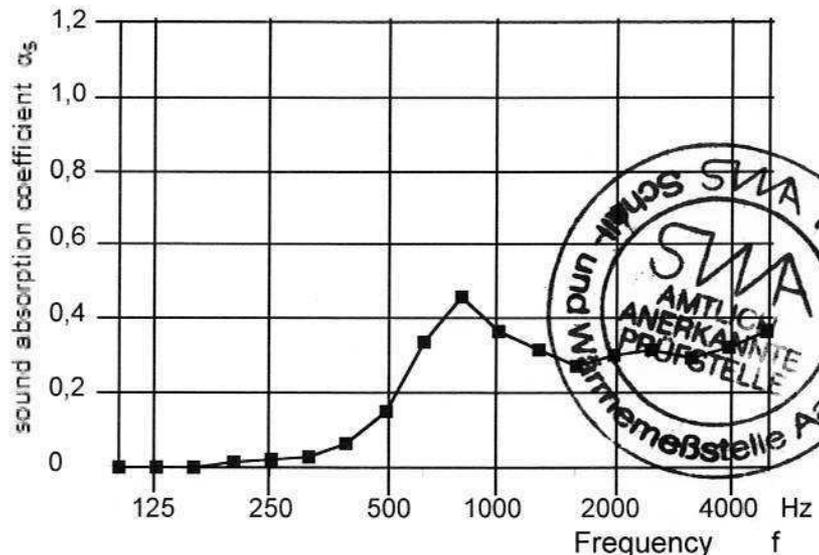
Surface areas of reflectors in reverberation room: 54,5 m<sup>2</sup>

#### Reflectors:

6 Alu panels of 1,0 m/ 2,0 m

7 Plywood panels of 1,5 m/ 1,3 m

1 Alu panels of 1,8 m/ 0,9 m



Test sound: third-octave noise

Reception filter: third-octave

Test report no.:

**411 900**

Aachen

22.12.2011

SWA Schall- und Wärmemeßstelle Aachen GmbH

(Dipl.-Ing. A. Siebel)

Soundabsorber for the application in buildings - valuation of sound absorption  
 Sound absorption of DIN EN ISO 11654 : 1997- 07

Tested material: **article: tempo mod350**

Test room: reverberation room, Hauptstraße 133, 52 477 Alsdorf

Test area: 12,0 m<sup>2</sup>

Test method: method of reverberation room

Date of test: 19.12.2011

Description of the test material:

Total thickness: **7,0 mm**

Mass / area: **2,90 kg/m<sup>2</sup>**

laid loose on the floor of the reverberation room

frequency - range  
 of the "shapeindi-  
 cators"

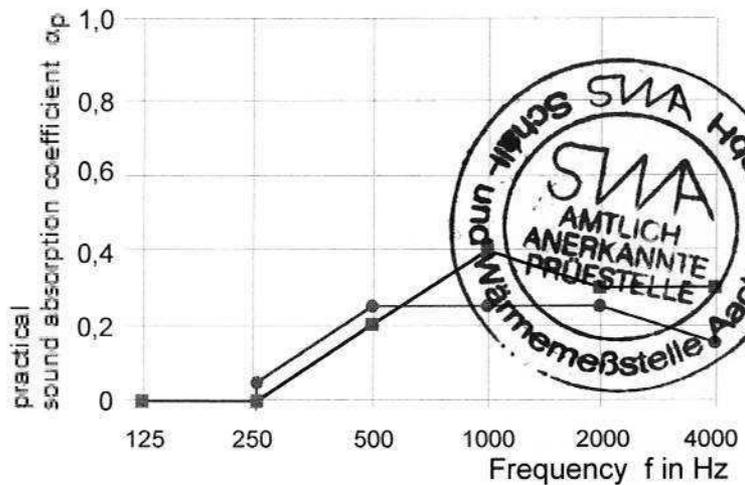
Frequency in Hz	actical sound absorption coefficient
125	0,00
250	0,00
<u>500</u>	<u>0,20</u>
M 1000	0,40
H 2000	0,30
H 4000	0,30

Results:  —   
 Relation - curve:  — 

Reverberation room:  
 Basic plan: trapezoid  
 Volume: 211 m<sup>3</sup>  
 Temperature: 20 °C  
 Humidity: 65 %

Surfaces areas of  
 reverberation  
 room: 213 m<sup>2</sup>

Surfaces areas of  
 reflectors in reverberation  
 room: 54,5 m<sup>2</sup>



Evaluated sound absorptions grade  $\alpha_w$

$\alpha_w : 0,25 ( - - - ) ^*)$

\*) It is recommended insintently to use this singular valuation with complete curve of sound absorption garde.

Test report no.:

**411 900**

Aachen

22.12.2011

SWA Schall- und Wärmemeßstelle Aachen GmbH

(Dipl.-Ing. A. Siebel)

**Reverberation times**

Measurement of sound absorption in a reverberation room

Tested material: **article: tempo mod350**

Test room: reverberation room, Hauptstraße 133, 52 477 Alsdorf

Test area: 12,0 m<sup>2</sup>

Test method: method of reverberation room

Date of test: 19.12.2011

**Description of the test material:**Total thickness: **7,0 mm**Mass / area: **2,90 kg/m<sup>2</sup>**

laid loose on the floor of the reverberation room

Dimension of the test area:

length: 3,84 m

width: 3,00 m

Reverberation times:

f / Hz	To / s	T1 / s
100	8,99	8,95
125	7,47	7,42
160	6,86	6,85
200	7,14	6,95
250	7,44	7,04
315	6,71	6,36
400	6,91	6,05
500	7,37	5,44
630	7,53	4,16
800	6,91	3,44
1000	6,79	3,80
1250	6,45	3,93
1600	5,91	3,93
2000	5,51	3,60
2500	4,34	3,04
3150	3,46	2,63
4000	2,71	2,13
5000	2,07	1,67

Number of loudspeaker positions: 2

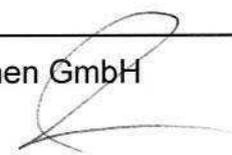
Test sound: third-octave noise

Number of microphone positions: 2 x 6

Reception filter: third-octave

Test report no.:

SWA Schall- und Wärmemeßstelle Aachen GmbH

Aachen **411 900**  
22.12.2011


## Annex TS – Impact Sound Insulation

### 1 Procedure

Sample designation ..... tempo mod350  
TFI reference number ..... 11-11-0155  
Testing period ..... 16<sup>th</sup> December 2011

The product identification characteristics can be found on the first page of the test report, respectively in annex KM.

### 2 Test method

Impact sound transmission according to EN ISO 10140:2010 (all parts) (formerly EN ISO 140-8:1998)

The standard describes a method to measure the impact sound insulation of building products in a test stand.

### 3 Remarks

Additionally, the calculated value according to EN ISO 717-2:1997 is indicated.

The test was carried out by a subcontractor.

# Impact sound insulation according ISO 10140 (all parts)

Measurement of impact sound insulation by a floor covering  
on a solid strings floor

Enclosure: TS

Page 2 of 2

**Product name** tempo mod350  
**Construction:** textile floor covering  
**Date of test:** 2011-12-16

**Classification:** category I according to ISO 10140  
**installation:** laid loose  
**setting time:** - h  
**installed by:** laboratory

**Description of test material:**

**Total thickness:** 7.0 mm  
**Mass / area:** 2,90 kg/m<sup>2</sup>

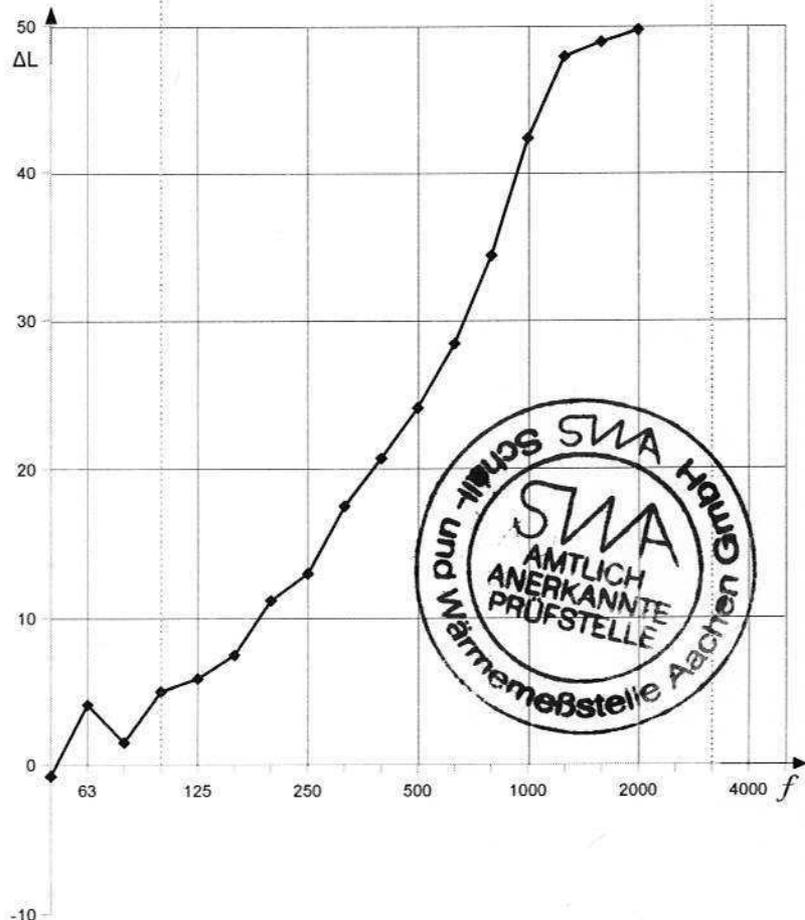
Specifies during the test (imprint or damage at the sample)

**Test room: 02 and K2, Hauptstrasse 133, 52477 Alsdorf, Germany**

Temperature in the sending room: 20.0 °C  
 Humidity in the sending room: 56.0 %  
 Volume of the receiving room: 58.9 m<sup>3</sup>

frequency range for the evaluation according to ISO 717-2

Frequency <i>f</i> Hz	<i>L</i> <sub>n,0</sub> third-octave dB	$\Delta L$ third-octave dB
50		-0.8
63		4.1
80		1.5
100	61.0	5.0
125	61.4	5.9
160	64.8	7.5
200	63.7	11.2
250	65.4	13.0
315	65.6	17.5
400	66.1	20.7
500	66.0	24.1
630	66.4	28.4
800	66.3	34.3
1 000	66.2	42.3
1 250	66.6	47.9
1 600	67.2	48.9
2 000	67.1	49.7
2 500	67.0	58.0
3 150	66.4	57.0
4 000		--
5 000		--



**Legend:**

$\Delta L$  impact sound protection, in dB  
*f* Frequency in Hz

Calculation according to ISO 717-2

$\Delta I_w = 25 \text{ dB}$

$C_{I,\Delta} = -10 \text{ dB}$

$C_{I,r} = -1 \text{ dB}$

$C_{I,r,50-2500} = 4 \text{ dB}$

The results base on tests, which were effected with on artificial source of sound under labratory conditions. (standard method)

Report No.: 411 900

SWA Schall- und Wärmemesststelle Aachen GmbH

Aachen, 2011-12-22

(Dipl.-Ing. A. Siebel)