

*This revision replaces the earlier report 4812-R1 dated 2026-02-23 to correct values in frequency bands in table 1. Changes are marked with a vertical line on the left side of the document.*

## SOUND ABSORPTION MEASUREMENTS FOR SCREENIT A30 TERRA

### CONCLUSIONS

The sound absorption for ScreenIT A30 Terra screens from Götessons has been measured according to the reverberation room method (SS-EN ISO 354:2003) and evaluated according to ISO 20189:2018. The  $N_{10}$ -value, as used by the Swedish authority dealing with public purchasing, Kammarkollegiet, has been calculated.

Detailed results are presented in the measurement protocols (M1-M2) belonging to this report. A summary is presented in the tables below.

Measurement protocol	Test object	Sound absorption area in frequency band (Hz)							$N_{10}$
		125	250	500	1000	2000	4000		
M1	ScreenIT A30 Terra 1400x632	0.42	0.57	0.85	1.0	1.2	1.3	12	
M2	ScreenIT A30 Terra 1600x632	0.47	0.64	0.95	1.2	1.4	1.4	11	

Table 1: Summary of the results as practical absorption area as described in ISO 20189:2018 and as  $N_{10}$ -value as used by Kammarkollegiet.

### 1 CLIENT

Götessons Industri AB, Box 56, 523 22 Ulricehamn, Sweden  
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### 2 ASSIGNMENT

To measure the sound absorption for ScreenIT A30 Terra screens from Götessons has been measured according to SS-EN ISO 354:2003. The measurements should be evaluated according to ISO 20189:2018.

Akustikverkstan is accredited for ISO 20189:2018 and SS-EN ISO 354:2003.

### 3 TEST OBJECTS

#### *ScreenIT A30 Terra*

Desk screen with wooden frame and polyester filling covered with laminated fabric (Event Screen). The screen features solid wood trims in ash at both the top and bottom edges. Outer

dimensions were measured to be 1400 x 632 x 37 mm and 1605 x 632 x 37 respectively. Measured weights of one screen was: 4.68 kg and 4.98 kg for respectively size.

Photos of the tested objects can be found in figure 1 and 2.



Figure 1: ScreenIT A30 Terra 1400x632

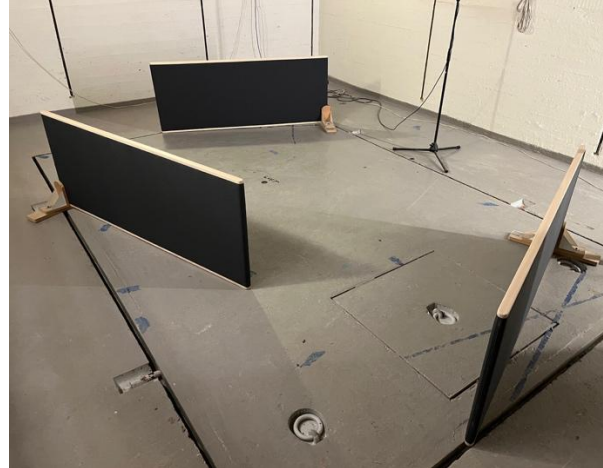


Figure A2: ScreenIT A30 Terra 1600x632

#### **4 MEASUREMENT PROCEDURE**

The absorption measurements were performed according to the standard SS-EN ISO 354:2003. The measurements were made with three speaker positions and four microphone positions. The results for sound absorption area were evaluated according to ISO 20189:2018. The test specimen area fulfils the requirements in SS-EN ISO 354:2003.

The measurements were performed by Joachim Schubert 2026-02-12 in Akustikverkstan's reverberation room in Skultorp, Skövde, Sweden. More information on the test facilities can be found in Appendix 2.

The equipment used is presented in Appendix 3.

#### **5 RESULTS**

Detailed measurement results are available in the measurement protocols belonging to this report, 4812-M1 to M2. The results are only valid for the tested samples. The measurement accuracy is described in Appendix 4.

## 6 COMMENTS AND INTERPRETATIONS

### 6.1 $N_{10}$ value

The  $N_{10}$  value is a comparative value that applies to acoustic products with sound absorbing properties. *Kammarkollegiet*, the Swedish authority dealing with public purchasing, uses the value in their advice regarding purchasing of sound absorbers. The  $N_{10}$  value is calculated with the formula:

$$N_{10} = \frac{10}{A_{dim}}$$

$A_{dim}$  is the average sound absorption area of the three 1/3 octave bands in the 500 Hz octave band. The  $N_{10}$  value is developed to be a single value metric for speech sound absorption and describes how many objects are needed to obtain 10 m<sup>2</sup> of sound absorption area in the 500 Hz octave band. If the sound absorption is lower in any octave above 500 Hz, the lower value will be used instead

This report should always be used in its complete context, even though the measurement protocols may be used independently.

Joachim Schubert

Reviewed by Carl Nyqvist, 2025-02-24

## APPENDIX 1: MEASURED REVERBERATION TIMES

f(Hz)	Empty	M1-ScreenIT A30 Terra 1400x632	M2 - ScreenIT A30 Terra 1600x632
50	8.04	6.18	6.25
63	8.28	6.70	6.67
80	7.82	6.36	6.22
100	7.23	5.88	5.74
125	7.02	5.56	5.46
160	5.48	4.37	4.22
200	5.63	4.43	4.30
250	5.42	4.27	4.12
315	5.51	4.15	4.03
400	5.28	3.91	3.81
500	4.84	3.44	3.31
630	4.31	3.16	3.06
800	4.75	3.30	3.15
1000	4.58	3.20	3.08
1250	4.10	2.90	2.78
1600	3.78	2.63	2.52
2000	3.31	2.44	2.32
2500	2.97	2.22	2.15
3150	2.49	1.94	1.92
4000	2.09	1.66	1.64
5000	1.67	1.41	1.39

Number of objects (m <sup>2</sup> )	0	3	3
Temperature (°C)	15.8	15.9	16.4
RH (%)	49	50	50

## APPENDIX 2: INFORMATION ABOUT THE REVERBERATION ROOM

The reverberation room is rectangular, measuring Length x Width x Height = 5.85 x 4.65 x 7.35 m. The room volume is 200 m<sup>3</sup> and the total area of the walls, ceiling and floor is 209 m<sup>2</sup>. There are 22 diffusors (size 0.775 x 1.25 m) randomly installed in the room. The reverberation time between 50 and 200 Hz is controlled with membrane absorbers on the walls.

The test specimen is put on the floor on the mounting area (10 m<sup>2</sup>, 2.6 x 3.85 m) according to figure A2.1. The mounting area consists of a concrete slab that can be lowered up to 700 mm below the floor.

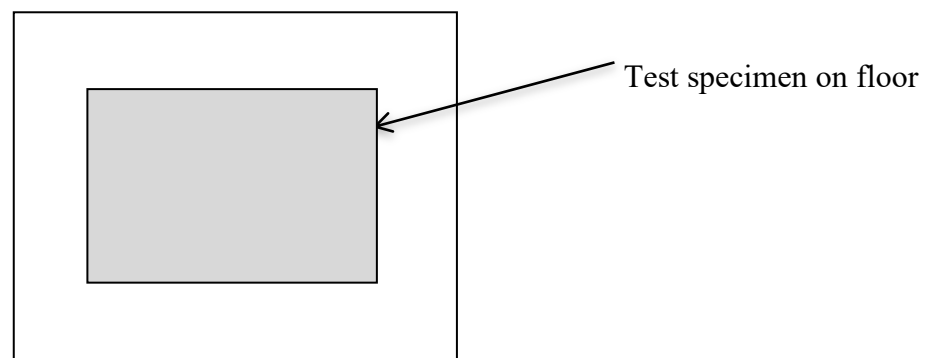


Figure A2.1: Plane drawing of the reverberation room with the positions of the test specimens.

### APPENDIX 3: MEASUREMENT EQUIPMENT

Table A3.1 lists the equipment used during the measurements. The equipment fulfils class 1 according to SS-EN 61672-1, 60942 and 61260. Date for the latest calibration is available in the instrument journal of Akustikverkstan.

Instrument	Manufacture and type	Serial number	Internal designation
Measurement computer	HP Zbook		DA02
Front end	National Instruments NI 9234	1918620/190DB0B	AN05
Microphone	Roga MI-17	592	MI04
Microphone	Roga MI-17	3186	MI31
Microphone	Roga MI-17	594	MI06
Microphone	Roga MI-17	595	MI07
Speaker	IMA Kub 1	8	HÖ7
Speaker	IMA Kub 1	9	HÖ8
Speaker	IMA Kub 1	10	HÖ9
Equalizer	Monacor MEQ-2152	-	Lab
Amplifier	Denon POA-2200	-	Lab

Table A3.1: Equipment used during the measurements.

## APPENDIX 4: MEASUREMENT UNCERTAINTY

The uncertainties in the measured sound absorption coefficients have been estimated to the values in table A4.1. The uncertainty corresponds to one standard deviation. The uncertainty in measured sound absorption area is calculated from the actual test sample area multiplied by the uncertainty below.

<b>50 Hz</b>	<b>63 Hz</b>	<b>80 Hz</b>	<b>100 Hz</b>	<b>125 Hz</b>	<b>160 Hz</b>	<b>200 Hz</b>
± 0.10	± 0.08	± 0.07	± 0.06	± 0.05	± 0.04	± 0.03
<b>250 Hz</b>	<b>315 Hz</b>	<b>400 Hz</b>	<b>500 Hz</b>	<b>630 Hz</b>	<b>800 Hz</b>	<b>1 kHz</b>
± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03
<b>1.25 kHz</b>	<b>1.6 kHz</b>	<b>2 kHz</b>	<b>2.5 kHz</b>	<b>3.15 kHz</b>	<b>4 kHz</b>	<b>5 kHz</b>
± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03	± 0.03

Table A4.1: Measurement uncertainty for each third octave.

# ScreenIT A30 Terra 1400x632

SOUND ABSORPTION AREA ACCORDING TO SS-EN ISO 354:2003 and ISO 20189:2018

Measurement of sound absorption area in a reverberation room



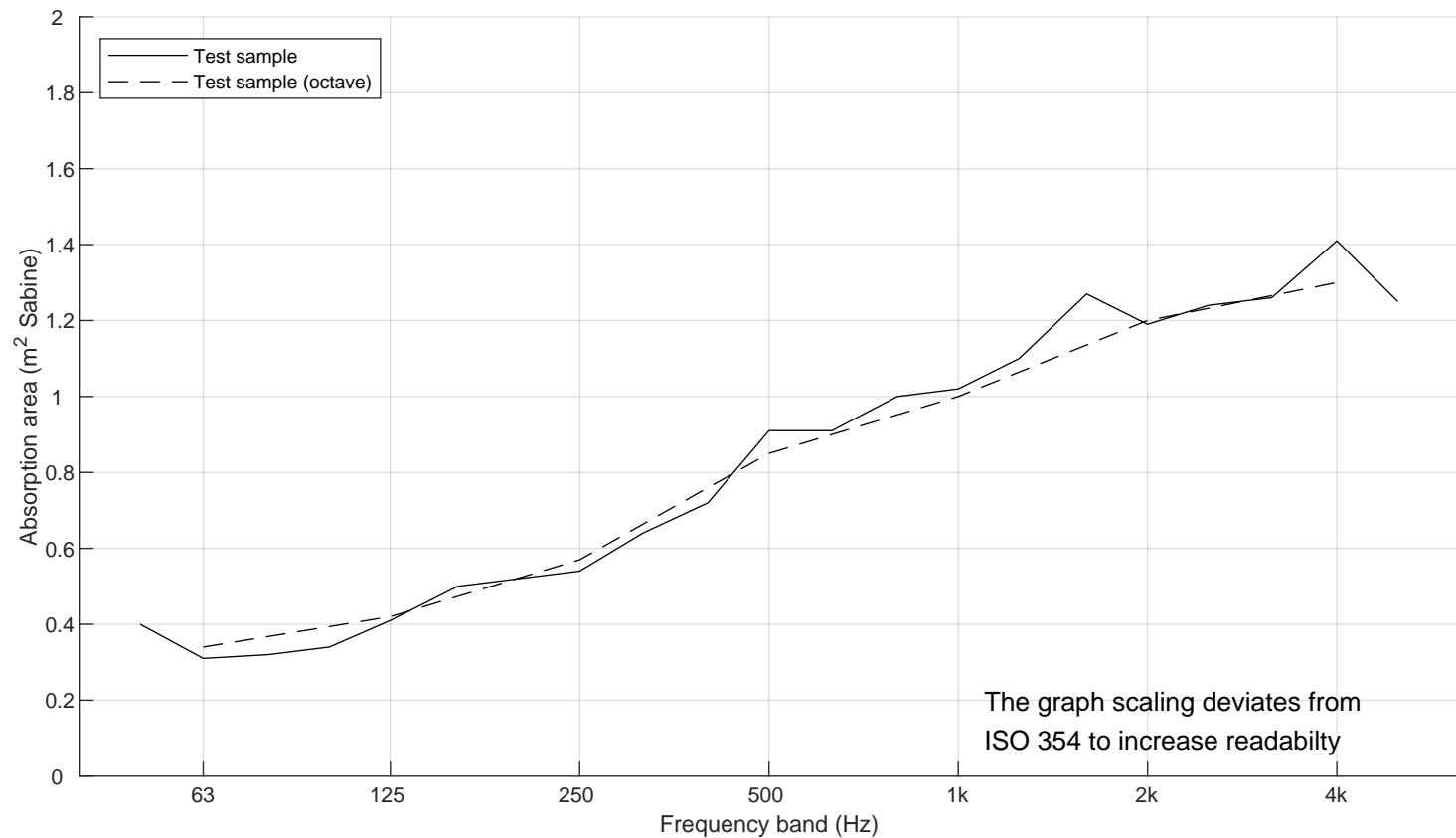
Report number:  
**4812-M1**  
Date  
**2026-02-24**

Frequency f [Hz]	Sound absorption area per object [m <sup>2</sup> Sabine]	
50	0.40	
63	0.31	0.34
80	0.32	
100	0.34	
125	0.41	0.42
160	0.50	
200	0.52	
250	0.54	0.57
315	0.64	
400	0.72	
500	0.91	0.85
630	0.91	
800	1.00	
1000	1.02	1.0
1250	1.10	
1600	1.27	
2000	1.19	1.2
2500	1.24	
3150	1.26	
4000	1.41	1.3
5000	1.25	

Client: Götessons Industri AB  
 Manufacturer: Götessons Industri AB  
 Product identification: ScreenIT A30 Terra 1400x632  
 Description of test specimen: Desk screen made of a wooden frame with polyester filling covered with laminated fabric (Event Screen).

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 15.9 °C (empty: 15.8 °C)  
 Air humidity: 50 % (empty: 49 %)  
 Air pressure: 99.5 kPa (empty: 99.5 kPa)  
 Number of objects: 3

Measurement date: 2026-02-12  
 Measured by: Joachim Schubert



$$N_{10} = 12$$

# ScreenIT A30 Terra 1600x632

SOUND ABSORPTION AREA ACCORDING TO SS-EN ISO 354:2003 and ISO 20189:2018

Measurement of sound absorption area in a reverberation room



Report number:  
4812-M2  
Date  
2026-02-24

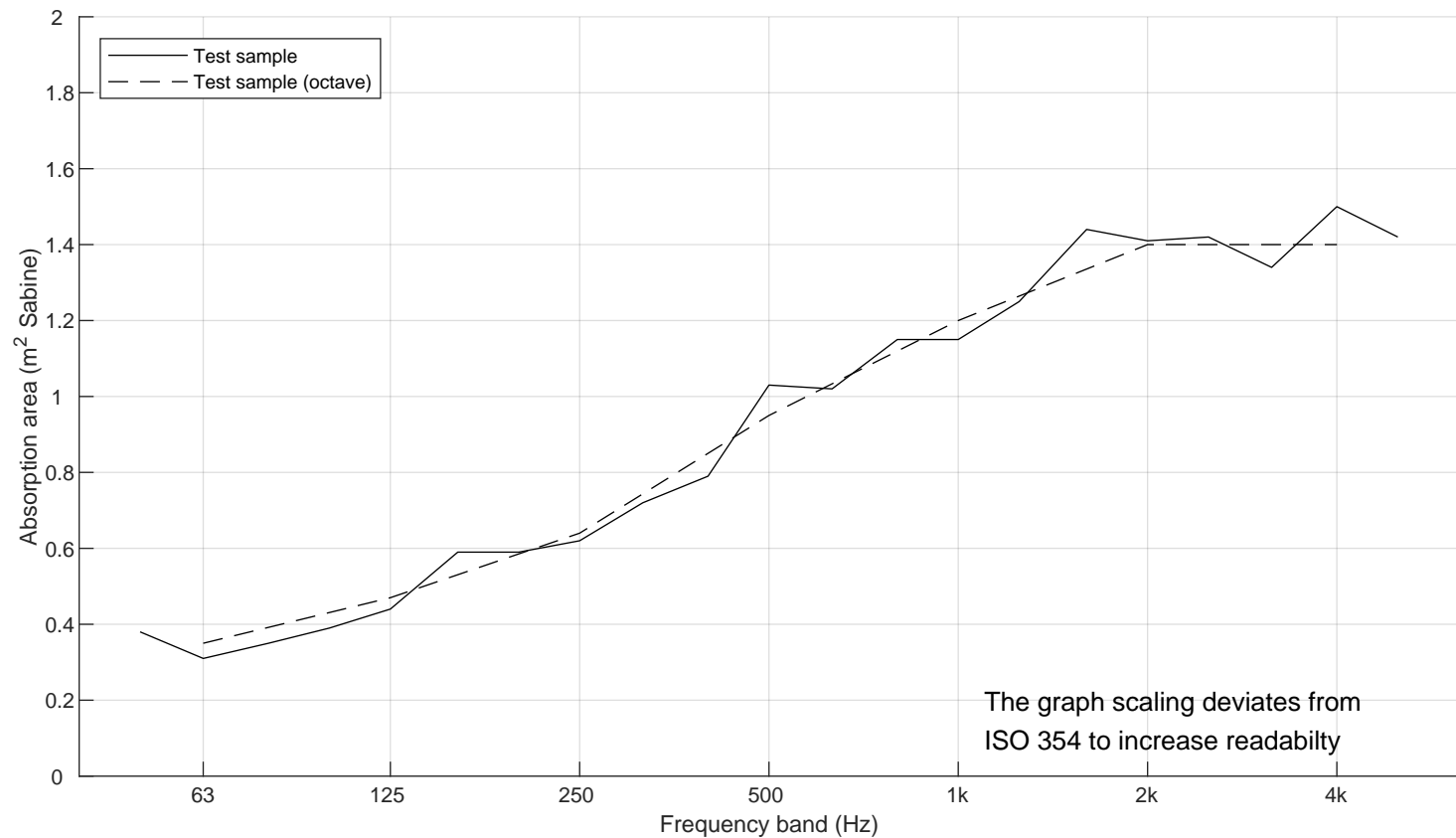
Frequency f [Hz]	Sound absorption area per object [m <sup>2</sup> Sabine]	
50	0.38	
63	0.31	0.35
80	0.35	
100	0.39	
125	0.44	0.47
160	0.59	
200	0.59	
250	0.62	0.64
315	0.72	
400	0.79	
500	1.03	0.95
630	1.02	
800	1.15	
1000	1.15	1.2
1250	1.25	
1600	1.44	
2000	1.41	1.4
2500	1.42	
3150	1.34	
4000	1.50	1.4
5000	1.42	

Client: Götessons Industri AB  
 Manufacturer: Götessons Industri AB  
 Product identification: ScreenIT A30 Terra 1600x632

Description of test specimen: Desk screen made of a wooden frame with polyester filling covered with laminated fabric (Event Screen).

Reverberation room volume: 200 m<sup>3</sup>  
 Temperature: 16.4 °C (empty: 15.8 °C)  
 Air humidity: 50 % (empty: 49 %)  
 Air pressure: 99.5 kPa (empty: 99.5 kPa)  
 Number of objects: 3

Measurement date: 2026-02-12  
 Measured by: Joachim Schubert



$$N_{10} = 11$$