



Prüfbericht Test Report

Bericht Nr. TC.21.12.005923
Report No.

Ausstellungsdatum 01/17/2022
Date of Issue

Antragsteller:

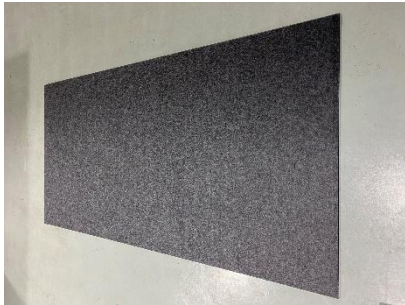
Applicant:

Adresse des Antragstellers:

Applicant address:

Beschreibung der Testperson:

Description of the test subject:

Probe Sample	Beschreibung Description	Foto Photo
001	Sample Description: PET acoustic panel, 12mm, 2400grams/m ²	

Eingangsdatum der Probe: 12/23/2021
Receipt Date of Sample:

Datum der Prüfung: From 12/28/2021 to 12/30/2021
Date of Testing:

Eingereichtes Muster: Die Stichprobe(n) wurde(n) vom Antragsteller eingereicht und identifiziert.
Sample submitted: The sample(s) was (were) submitted by applicant and identified.

Schlussfolgerung

Conclusion:

Testelemente Test Items			Schlussfolgerung Result
Nein. No.	Artikel Items	Norm Standard	
1	Acoustics - Measurement of sound absorption in a reverberation room	EN ISO 354:2003	See the test results

Note: (1) The TÜV SÜD SW Rail Transportation Technology (Jiangsu) Co., Ltd. General Terms & Conditions applied, for full content please visit <https://www.tuvsud.cn/zh-cn/terms-and-conditions>. (2) The results relate only to the sample(s) as received. (3) The test report shall not be reproduced except in full without the written approval of the company.

Laboratory
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Testergebnisse Test Results

1. EN ISO 354:2003 Acoustics - Measurement of sound absorption in a reverberation room

1.1 Musterspezifikation Sample Specification

Probengröße Specimen size	3.05m*3.66m
Probendicke Specimen thickness	12.0mm
Probenbereich Specimen area	11.163m ²

1.2 Testumgebung Test Environment

Temperatur (vor dem Einsetzen der Probe) Temperature (Before placing sample)	15°C
Relative Luftfeuchtigkeit (vor dem Einsetzen der Probe) Relative humidity (Before placing sample)	39%
Temperatur (Nach dem Einsetzen der Probe) Temperature (After placing sample)	15°C
Relative Luftfeuchtigkeit (Nach dem Einsetzen der Probe) Relative humidity (After placing sample)	39%
Volumen des Nachhallraums Volume of reverberation room	201.2m ³
Gesamtfläche des Nachhallraums Total surface area of reverberation room	211.2 m ²

1.3 Prüfmittel Test Equipment

Dodecahedral sound source EC-JB-009-2
Acoustic measurement system (94dB/114dB Primary precision calibrator) EC-JB-009-3
Acoustic measurement system (Sound level meter + Measuring microphone) EC-JB-009-1

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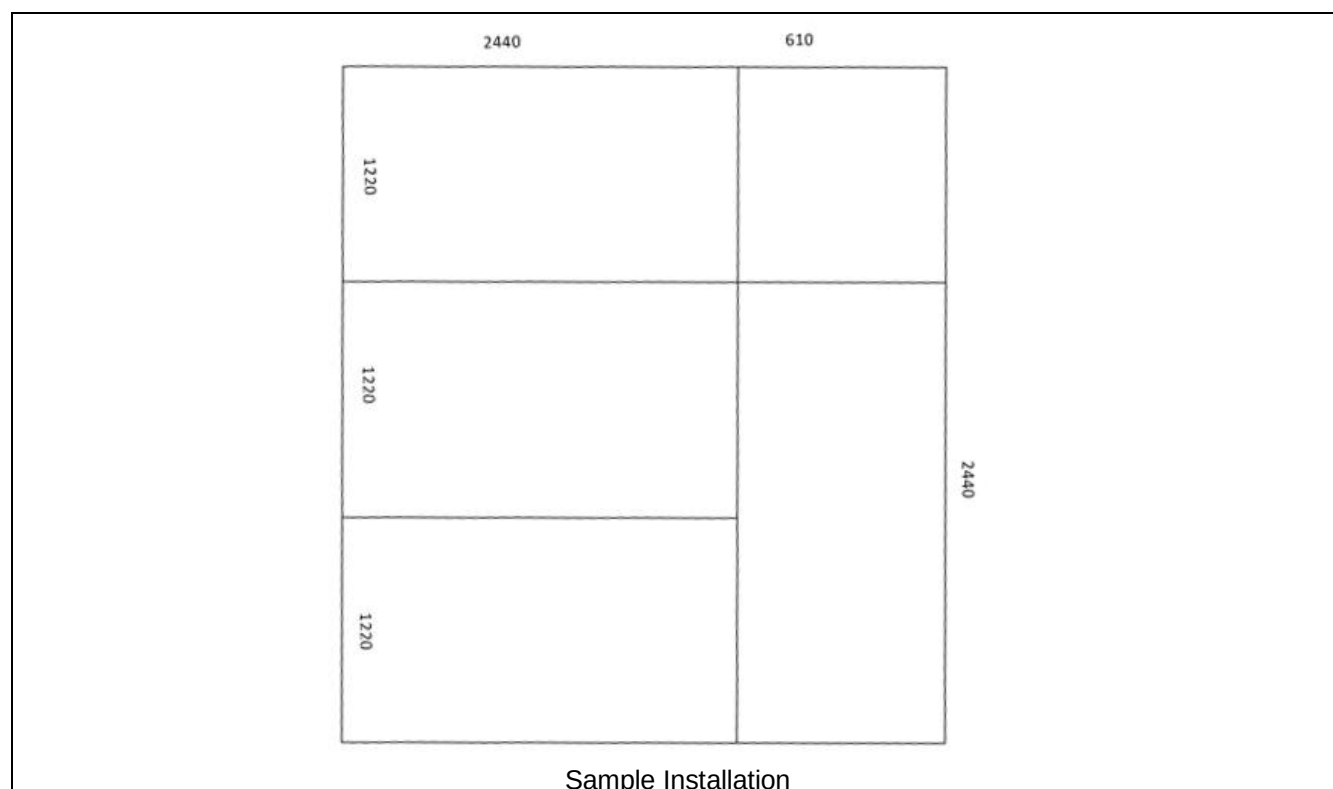
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1.4 Beispielinstallation

Sample Installation

Place the test specimen on the ground of the reverberation room and sealed with sealant. The boundary is not included in the total area of the test specimen.



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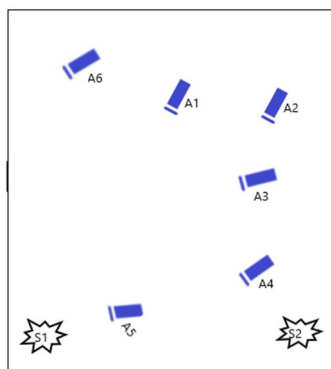
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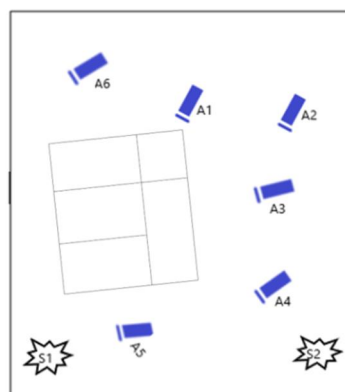
1.5 Testsituation Test Situation

Microphones and Sound Sources position:

As shown below, 6 microphones and 2 sound sources are arranged omnidirectionally in the reverberation room. The measurements shall be made with different microphone positions which are at least 1.5 apart, 2m from any sound source and 1m from any room surface and the test specimen. Different sound source positions which are at least 3m apart shall be used.



Empty reverberation room



Reverberation room containing a test specimen



During the test

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1.6 Testergebnisse
Test Results

Frequency/Hz	AT/Sound absorption	α /Sound absorption coefficient
100	0.17	0.02
125	0.09	0.01
160	0.04	0.01
200	0.49	0.04
250	0.47	0.04
315	0.99	0.09
400	1.56	0.14
500	2.21	0.2
630	3.32	0.3
800	4.38	0.39
1000	6.1	0.55
1250	6.99	0.63
1600	8.12	0.73
2000	8.42	0.75
2500	9.09	0.81
3150	9.47	0.85
4000	9.92	0.89
5000	9.97	0.89

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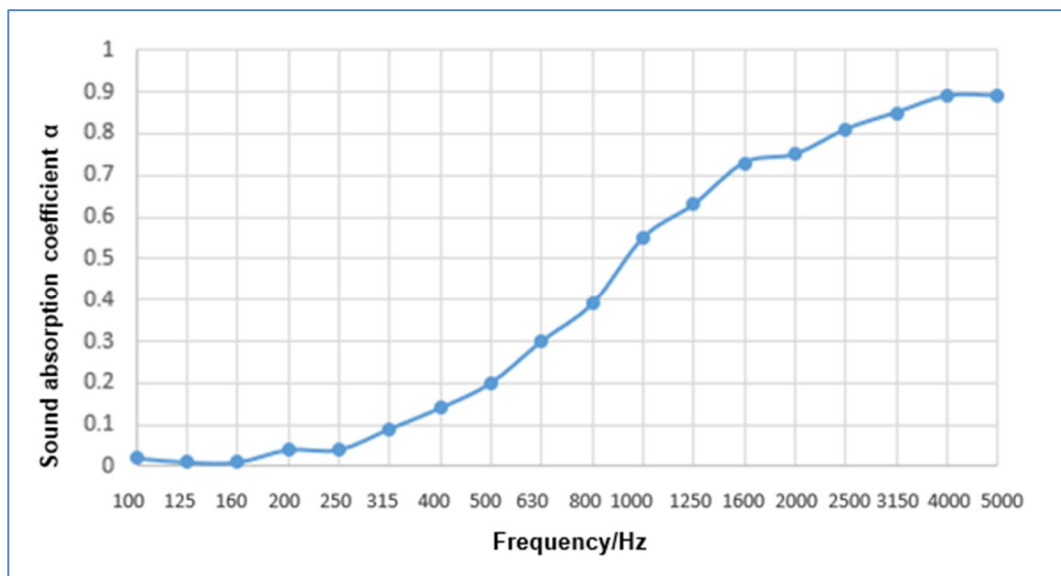
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1.7 Ein Rauschunterdrückungskoeffizient Noise Reduction coefficient

A Noise Reduction Coefficient (NRC) is the arithmetic average of the Absorption Coefficients at specific mid-range frequencies tested at 250, 500, 1000, and 2000Hz octave rounded to the nearest multiple of 0.05.

Conclusion: The noise reduction coefficient of the tested sample **NRC=0.40**

TÜV SÜD SW Rail Transportation Technology (Jiangsu) Co., Ltd.

Entworfen von:
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Genehmigt von:
Approved by:

Qin jianzhong

Jianzhong Qin

-Ende des Berichts-
-End of Report-

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