

Summary of Investigation

subject: Texacoustic® Absorption Measurements
date: June 29, 2017
reference: TS/MH/KF/A 3049-2E-NO-001

1 Introduction

At the request of Raymakers Royal Dutch Textile Mills at Helmond (The Netherlands), tests have been carried out in the Laboratory for Acoustics of Peutz bv, at Mook, The Netherlands. The aim of the tests is to determine the sound absorbing quality of Texacoustic®. The full test results are given in test reports A 2974-2E-RA (variant 1) and A 3049-1E-RA (variant 2 and 3) where a description is given of the standards and guidelines, the measurement situation, the measurement method, measurement accuracy and environmental conditions.

This document gives a summary of the test results expressed in the single number ratings and the absorption coefficients corresponding figure.

2 Measurement results.

The measurements have been carried out according to ISO 354:2003 - Acoustics Measurement of sound absorption in a reverberation room. The following results are gained:

Texacoustic® type 955.001

- Texacoustic®
- manufacturer: Raymakers Royal Dutch Textile Mills
- tested without perimeter frame
- dimensions (one of the two parts): 1380 mm x 2820 mm
- thickness: ca. 3,5 – 4 mm
- surface weight: 1080 g/m² - 1240 g/m²

Variant 1: Texacoustic® type '955.001' hanged parallel tot the room surface on 300 mm, 100% fold-rate, without perimeter frame

$$\alpha_w \text{ (ISO 11654)} = 0,95$$

class: A

$$\text{NRC (ASTM - C423)} = 0,90$$

$$\text{SAA (ASTM - C423)} = 0,89$$

Absorption is calculated based on a single-sided surface



Variant 2: Texacoustic® type '955.001' hanged parallel tot the room surface on 1000 mm, 100% fold-rate, without perimeter frame

$$\alpha_w \text{ (ISO 11654)} = 0,90$$

class: A

$$\text{NRC (ASTM - C423)} = 0,90$$

$$\text{SAA (ASTM - C423)} = 0,92$$

Absorption is calculated based on a single-sided surface



Variant 3: Texacoustic® type '955.001' free hanging in the reverberation room (diagonal and non parallel to a wall), 100% fold-rate

$$\alpha_w \text{ (ISO 11654)} = 1,00$$

class: A

$$\text{NRC (ASTM - C423)} = 1,10$$

$$\text{SAA (ASTM - C423)} = 1,12$$

Absorption is calculated based on a single-sided surface



The frequency-dependent measurement results are presented on page 3 in the figure sheet.

Mook,

This note contains 2 pages, 1 figure

NR. Rec-Nr. DESCRIPTION

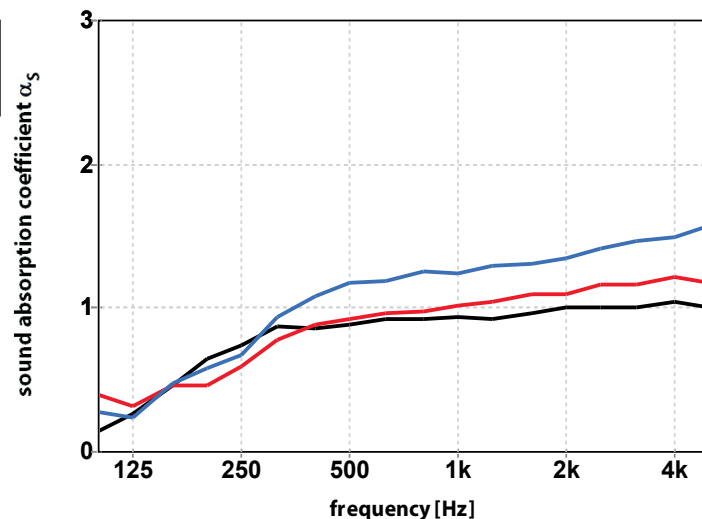
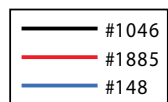
Variant 1: #1046 Texacooustic® type '955.001' hanged parallel tot the room surface on
Black Line 300 mm, 100% fold-rate, without perimeter frame
 α_w (ISO 11654) = 0,95
class: A
NRC (ASTM - C423) = 0,90
SAA (ASTM - C423) = 0,89
Absorption is calculated based on a single-sided surface



Variant 2: #1885 Texacooustic® type '955.001' hanged parallel tot the room surface on
Red Line 1000 mm, 100% fold-rate, without perimeter frame
 α_w (ISO 11654) = 0,90
class: A
NRC (ASTM - C423) = 0,90
SAA (ASTM - C423) = 0,92
Absorption is calculated based on a single-sided surface



Variant 3: #148 Texacooustic® type '955.001' free hanging in the reverberation room
Blue Line (diagonal and non parallel to a wall), 100% fold-rate
 α_w (ISO 11654) = 1,00
class: A
NRC (ASTM - C423) = 1,10
SAA (ASTM - C423) = 1,12
Absorption is calculated based on a single-sided surface



volume reverberation room: 214 m³

surface area sample:
Variant 1: 10,6 m²
Variant 2: 11,2 m²
Variant 3: 11,0 m²

measured at: Peutz Laboratory for Acoustics

signal: broad-band noise

bandwidth: 1/3 octave

Rec.nr	0,29	0,75	0,89	0,93	0,99	1,02
#1046	0,29	0,75	0,89	0,93	0,99	1,02
#1885	0,39	0,61	0,92	1,02	1,12	1,18
#148	0,33	0,73	1,15	1,26	1,36	1,51