

In-situ sound reflection and sound absorption

Measurement of in-situ sound reflection values in directional sound
fields on a moss noise barrier — based on DIN EN 1793-5.

TEST OBJECT Moss noise barrier · height 4.75 m ·
width 23 m

TEST LABORATORY Gesellschaft für Akustikforschung
Dresden mbH, Blumenstraße 80,
01307 Dresden

MANUFACTURER MOOSMOOS Manufaktur

REPORT NO. 230160354802 · Engineers T.
Böhme, A. Thies

CLIENT MOOSMOOS Manufaktur –
Bergermann Floristik GmbH,
Mittelweg 6, 02736 Oppach ·
Contact Jens Loschke

TEST STANDARD based on DIN EN 1793-5 ·
instrument AcoustiAdrienne,
module “Sound absorption in situ”

MEASUREMENT DATE 21.06.2023

REPORT DATE 27.06.2023

RESULTS · AVERAGE OF 3 MEASURING POINTS

1.4_±dB

DLRI · ROAD NOISE
BARRIERS · DIN EN 1793-
5

1.9_±dB

DLRI · RAILWAY NOISE
BARRIERS · DIN EN
16272-3-2

0.84

SOUND ABSORPTION
COEFFICIENT A AT 5000
HZ

NOTE Summary of the measurement results from test report no. 230160354802 by Gesellschaft für Akustikforschung Dresden mbH (www.akustikforschung.de). The laboratory's complete test report is authoritative; the measured values are reproduced unchanged.

A 01 · AVERAGE OF 3 MEASURING POINTS

Measurement of in-situ sound reflection values in directional sound fields

Moss noise barrier · manufacturer MOOSMOOS Manufaktur · based on DIN EN 1793-5

TEST OBJECT

DESIGNATION	Average of 3 measuring points
DESCRIPTION	Moss noise barrier
MANUFACTURER	MOOSMOOS Manufaktur
THICKNESS	~0.3 m total thickness; moss top layer approx. 0.02 m on 0.01 m timber board
HEIGHT	4.75 m
WIDTH	23 m; measuring area limited or interrupted by vegetation

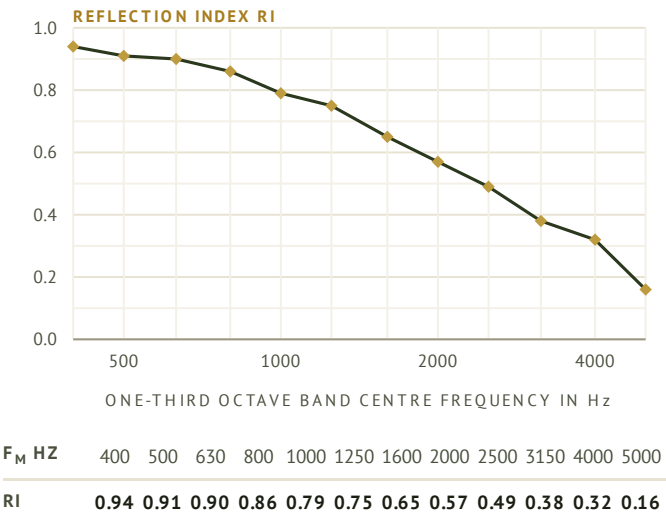
INSTRUMENT

DESIGNATION	Sound absorption meter AcoustiAdrienne – module “Sound absorption in situ”
MANUFACTURER	Gesellschaft für Akustikforschung Dresden mbH
SOFTWARE	AcoustiStudio, Version 3.2.11 – www.akustikforschung.de

MEASUREMENT CONDITIONS

TEST STANDARD	based on DIN EN 1793-5
MEASUREMENT DATE	21.06.2023
AMBIENT TEMPERATURE	27 °C (free field); 28 – 30 °C (with test object)
AIR PRESSURE	101 kPa
TIME WINDOW	M1: 2.5; M2: 3.5; M3: 4; M4: 2.5; M5: 4; M6: 3.4; M7: 2.5; M8: 3.5; M9: 3.4 ms
SOURCE – GRID	1.25 m
GRID – WALL	0.25 m
SOURCE HEIGHT	min. 2.25 m

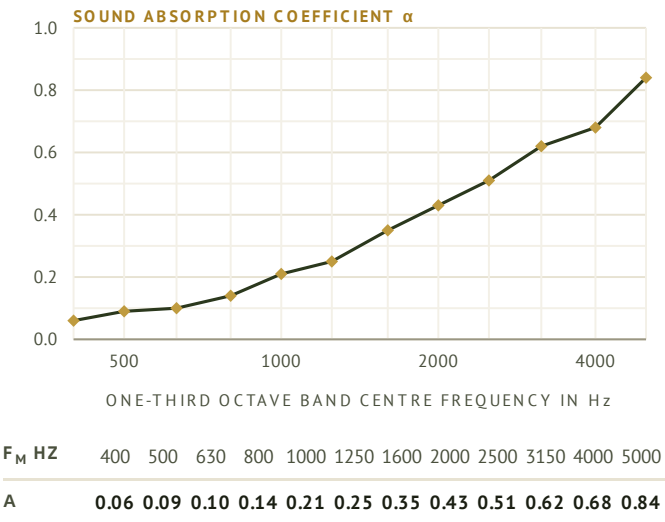
RESULTS: REFLECTION INDEX



1.4dB

DLRI ROAD · DIN EN 1793-5

RESULTS: SOUND ABSORPTION COEFFICIENT



1.9dB

DLRI RAIL · DIN EN 16272-3-2

A 01-1 · MEASURING POINT 1/3

Measurement of in-situ sound reflection values in directional sound fields

Moss noise barrier · manufacturer MOOSMOOS Manufaktur · based on DIN EN 1793-5

TEST OBJECT

DESIGNATION	Measuring point 1/3
DESCRIPTION	Moss noise barrier
MANUFACTURER	MOOSMOOS Manufaktur
THICKNESS	~0.3 m total thickness; moss top layer approx. 0.02 m on 0.01 m timber board
HEIGHT	4.75 m
WIDTH	23 m; measuring area limited or interrupted by vegetation

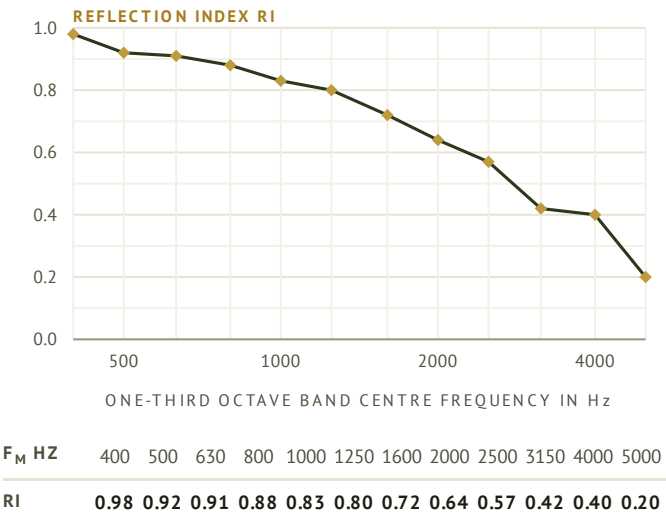
INSTRUMENT

DESIGNATION	Sound absorption meter AcoustiAdrienne – module “Sound absorption in situ”
MANUFACTURER	Gesellschaft für Akustikforschung Dresden mbH
SOFTWARE	AcoustiStudio, Version 3.2.10 – www.akustikforschung.de

MEASUREMENT CONDITIONS

TEST STANDARD	based on DIN EN 1793-5
MEASUREMENT DATE	21.06.2023
AMBIENT TEMPERATURE	27 °C (free field); 28 °C (with test object)
AIR PRESSURE	101 kPa
TIME WINDOW	M1: 2.5; M2: 3.5; M3: 4; M4: 2.5; M5: 4; M6: 3.4; M7: 2.5; M8: 3.5; M9: 3.4 ms
SOURCE – GRID	1.25 m
GRID – WALL	0.25 m
SOURCE HEIGHT	2.4 m

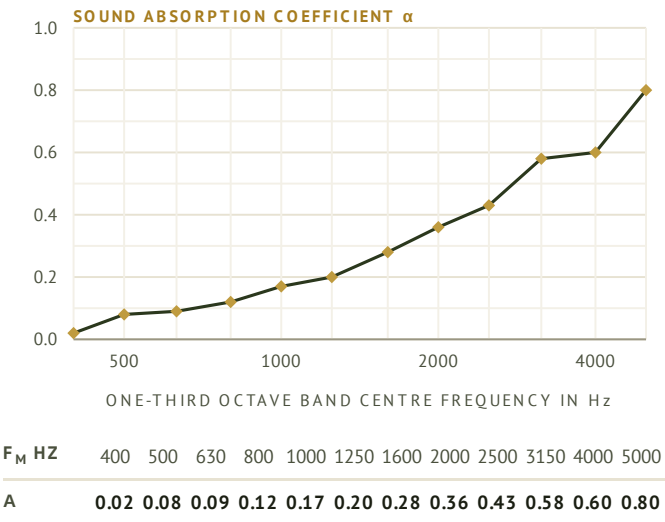
RESULTS: REFLECTION INDEX



1.1dB

DLRI ROAD · DIN EN 1793-5

RESULTS: SOUND ABSORPTION COEFFICIENT



1.6dB

DLRI RAIL · DIN EN 16272-3-2

A 01-2 · MEASURING POINT 2/3

Measurement of in-situ sound reflection values in directional sound fields

Moss noise barrier · manufacturer MOOSMOOS Manufaktur · based on DIN EN 1793-5

TEST OBJECT

DESIGNATION	Measuring point 2/3
DESCRIPTION	Moss noise barrier
MANUFACTURER	MOOSMOOS Manufaktur
THICKNESS	~0.3 m total thickness; moss top layer approx. 0.02 m on 0.01 m timber board
HEIGHT	4.75 m
WIDTH	23 m; measuring area limited or interrupted by vegetation

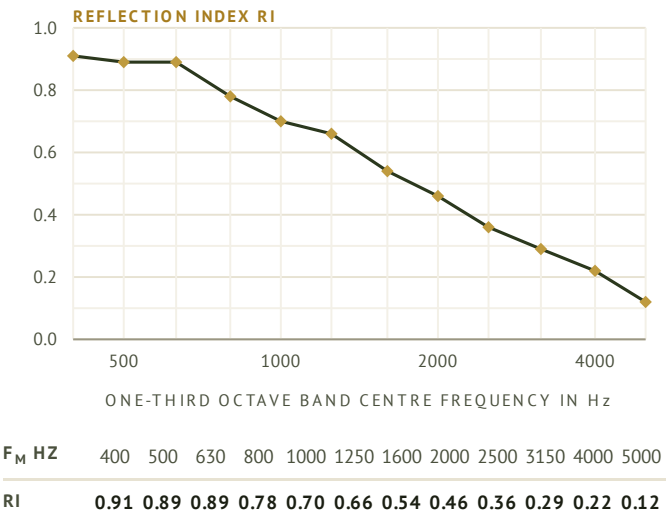
INSTRUMENT

DESIGNATION	Sound absorption meter AcoustiAdrienne – module “Sound absorption in situ”
MANUFACTURER	Gesellschaft für Akustikforschung Dresden mbH
SOFTWARE	AcoustiStudio, Version 3.2.10 – www.akustikforschung.de

MEASUREMENT CONDITIONS

TEST STANDARD	based on DIN EN 1793-5
MEASUREMENT DATE	21.06.2023
AMBIENT TEMPERATURE	27 °C (free field); 29 °C (with test object)
AIR PRESSURE	101 kPa
TIME WINDOW	M1: 2.5; M2: 3.5; M3: 4; M4: 2.5; M5: 4; M6: 3.4; M7: 2.5; M8: 3.5; M9: 3.4 ms
SOURCE – GRID	1.25 m
GRID – WALL	0.25 m
SOURCE HEIGHT	2.25 m

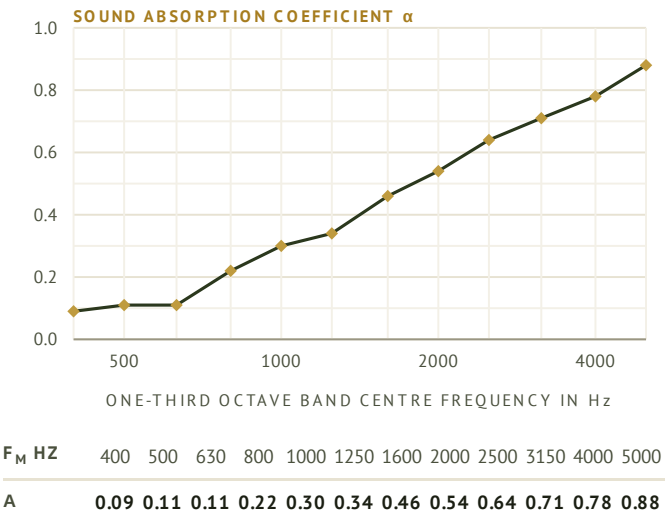
RESULTS: REFLECTION INDEX



1.9_{dB}

DLRI ROAD · DIN EN 1793-5

RESULTS: SOUND ABSORPTION COEFFICIENT



2.5_{dB}

DLRI RAIL · DIN EN 16272-3-2

A 01-3 · MEASURING POINT 3/3

Measurement of in-situ sound reflection values in directional sound fields

Moss noise barrier · manufacturer MOOSMOOS Manufaktur · based on DIN EN 1793-5

TEST OBJECT

DESIGNATION	Measuring point 3/3
DESCRIPTION	Moss noise barrier
MANUFACTURER	MOOSMOOS Manufaktur
THICKNESS	~0.3 m total thickness; moss top layer approx. 0.02 m on 0.01 m timber board
HEIGHT	4.75 m
WIDTH	23 m; measuring area limited or interrupted by vegetation

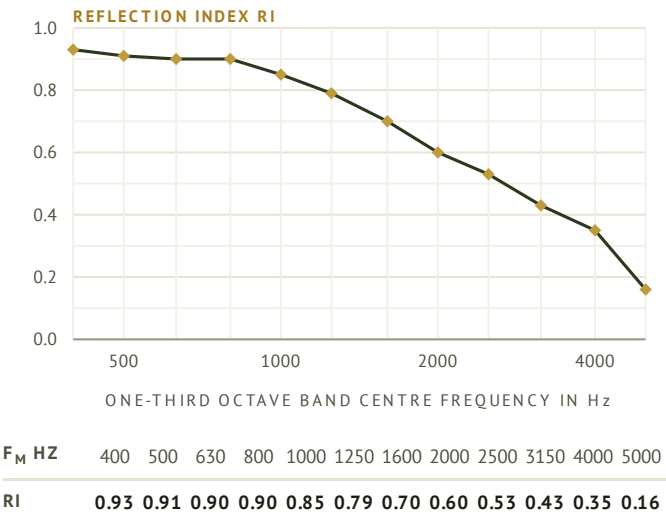
INSTRUMENT

DESIGNATION	Sound absorption meter AcoustiAdrienne – module “Sound absorption in situ”
MANUFACTURER	Gesellschaft für Akustikforschung Dresden mbH
SOFTWARE	AcoustiStudio, Version 3.2.10 – www.akustikforschung.de

MEASUREMENT CONDITIONS

TEST STANDARD	based on DIN EN 1793-5
MEASUREMENT DATE	21.06.2023
AMBIENT TEMPERATURE	27 °C (free field); 30 °C (with test object)
AIR PRESSURE	101 kPa
TIME WINDOW	M1: 2.5; M2: 3.5; M3: 4; M4: 2.5; M5: 4; M6: 3.4; M7: 2.5; M8: 3.5; M9: 3.4 ms
SOURCE – GRID	1.25 m
GRID – WALL	0.25 m
SOURCE HEIGHT	2.3 m

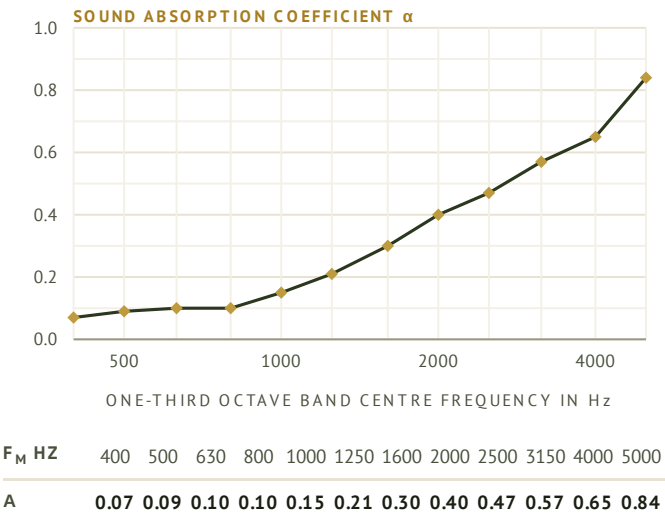
RESULTS: REFLECTION INDEX



1.2_{dB}

DLRI ROAD · DIN EN 1793-5

RESULTS: SOUND ABSORPTION COEFFICIENT



1.7_{dB}

DLRI RAIL · DIN EN 16272-3-2