CALMA-TEC PIN A ®

Additional element for noise barriers

CALMA-TEC FRIENDLY NOISE
PIN LÄRMSPOILER®

An additional element that can be fixed on noise barriers, which increases anti-noise performance with a lower barrier height. When fixed on already set up barriers, it does not require the subsequent static strengthening of the posts and the foundation.

→ The anti-noise effect of maximum 50 cm high elements is equivalent to barrier heights increased with 1.5 m[1].

→ The 35/50 cm high noise absorbing plates can be fitted to an aluminum profile produced by an extrusion process.

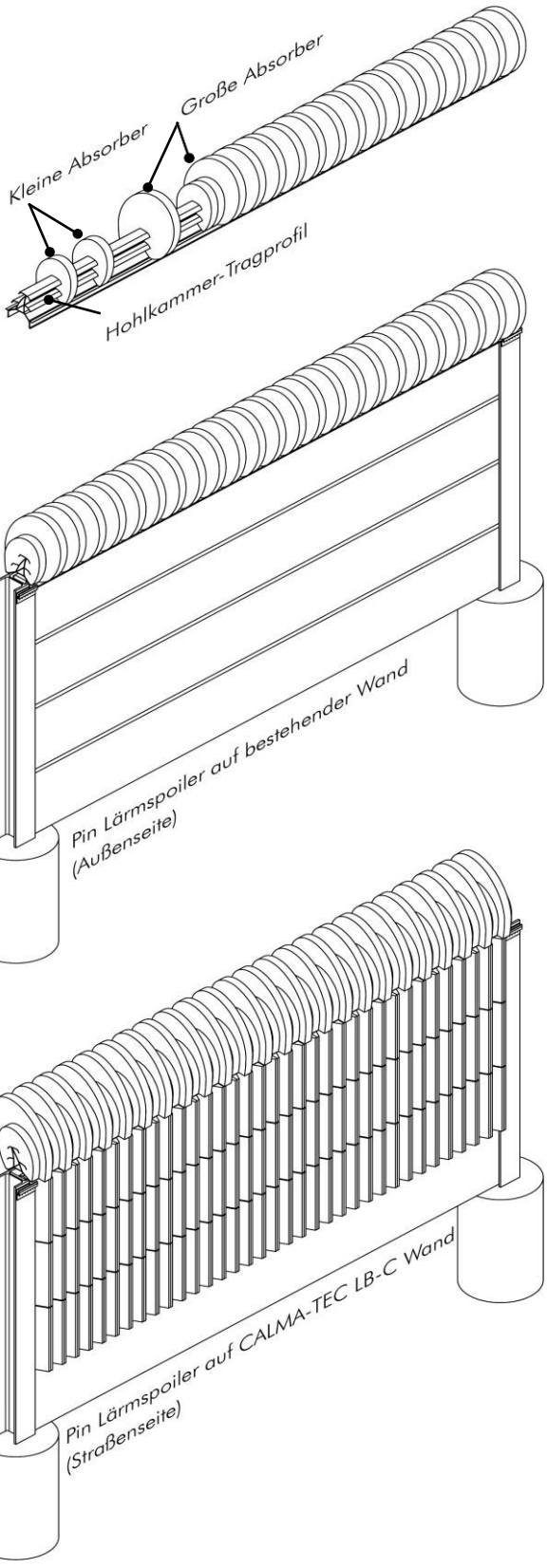
→ 50 years of proven lifetime and permanent strength[2].

→ The system is UV-resistant, weather-resistant, snow- and frost-resistant, pull- and impact-resistant.

→ The Calma Tec PIN A is an additional element that can be combined with any noise barrier system available on the market.

→ It provides low barrier height for newly built noise barriers, especially when combined with CALMA-TEC barrier systems

→ Besides the increased anti-noise effect, it is also visually aesthetic



1) A representative value depending on the type and size of the noise source, and also the topography of the region, which was calculated based on the results so far (expert opinion of MFPA Leipzig).
2) applicable to the system and also to the material (noise absorbing material: certified by AIDICO, Valencia, Spain)

Manual installation of A PIN A Lärmspoiler® next to railway traffic, without track obstruction

CALMA-TEC PIN A

MATERIAL PROPERTIES AND SYSTEM PERFORMANCE

MATERIAL

Hollow support profile:

- Extruded aluminum EN 6060 T66 F27
- Sea water and corrosion-resistant EN 1999-1-1:2006

Fixing profile:

- Extruded aluminum EN 6005 T6 F22
- Sea water and corrosion-resistant EN 1999-1-1:2006

Fixing bolts:

- Steel bolts X-Cr MP8 or screws

Noise absorbers:

- Polyethylene foam I
- Own weight: 30 kg/m³ +/- 2 kg
- Closed cell, open pore surface
- Water-uptake when immersed into water <4% according to the standard
- UV- and weather-resistant, dust-free
- 50 years lifespan with continuous usage
  (EOTA test, proven based on model QUV Q10)
- B1 fireproof

Fixing element/separator layer for the support profile

- EPDM, Shore-hardness: 70

SYSTEM AND ACOUSTIC PERFORMANCE

Thanks to their low height, the elements can be fixed also on existing barriers without significantly increasing wind pressure, therefore no subsequential modifications are needed. Weight release is achieved with a sliding track towards the posts.

The system is gravel impact resistant, fireproof (B1 level), UV-resistant, snow- and frost-resistant, pull- and impact-resistant and weather-resistant.

Load on the posts and on the foundation only slightly increases, supervision is required depending on the specific situation.

DIMENSIONS/APPEARENCE

Length: 5,0 m and 2,5 m standard lengths*

Height: 503 mm / 335 mm (max height from the top-edge og the noise barrier)

Depth: 459 mm (max protrusion)
on the road-side max 90 mm protrusion

Mass: 10 kg/ml ± 0,5 kg

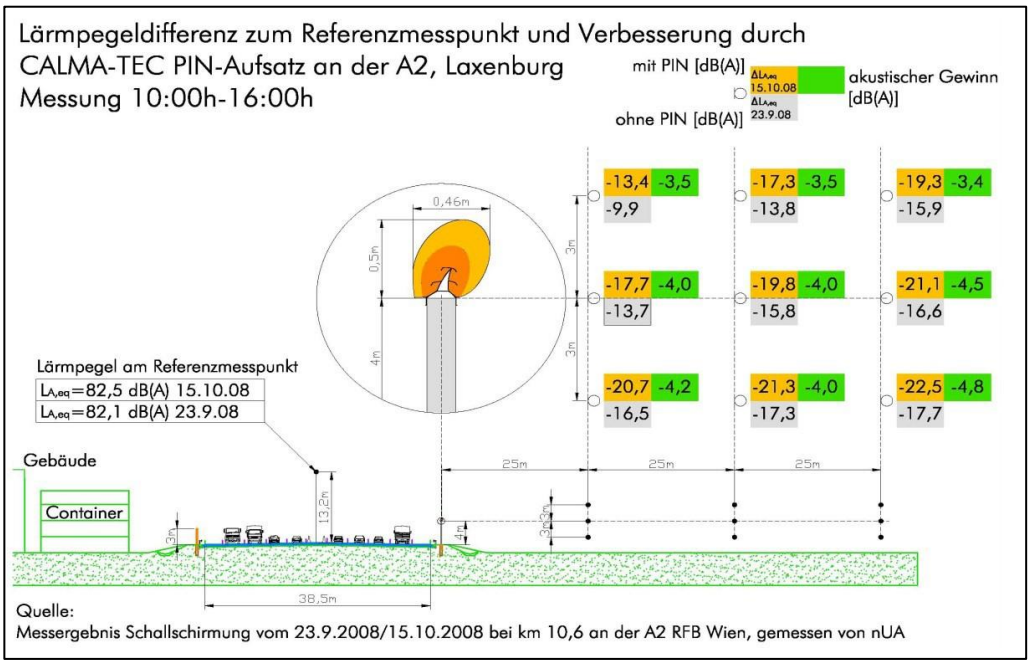
Surface: Open pore PE plactic Q-Cell

Color: Black/Anthracite

*the profile length is 50 mm shorter than the axis distance
different length available on request

CALMA-TEC PIN A

DEGREE OF NOISE REDUCTION



PIN LÄRMSPOILER®

PIN on the noise barrier

In average -4 dB(A) improvement can be achieved when using PIN A LÄRMSPOILER® noise reduction. This additional element equals to a 3 times larger barrier height compared to its own height. *The above figure shows the noise reduction effect improvement measured after installing PIN LÄRMSPOILER compared to the reference point placed in the middle of the road.*
The measurement was made in the lane of the A2 highway in the Vienna direction, near Laxenburg.

Installation on the posts

close-up, enlarged picture of noise absorbing material

Pin on wooden noise barrier

CALMA TEC PIN in Hungary, on highway M0

The PIN LÄRMSPOILER noise reduction is the product of CALMA-TEC Lärmschutzsysteme GesmbH.
The PIN LÄRMSPOILER® noise reduction is patent protected.