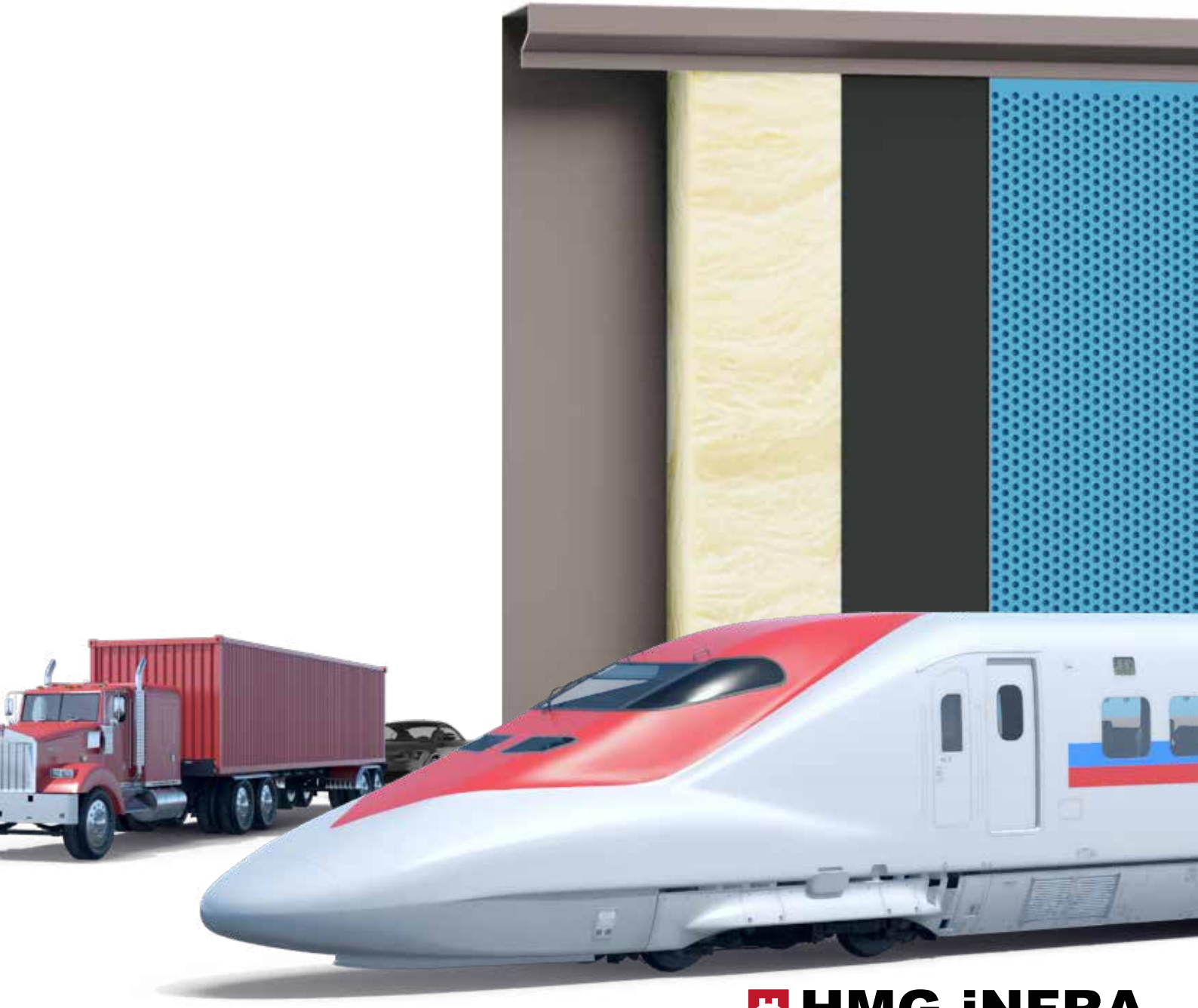
NOISE ABSORBENT

A500-ALU

PRODUCT DESCRIPTION AND TECHNICAL OVERVIEW



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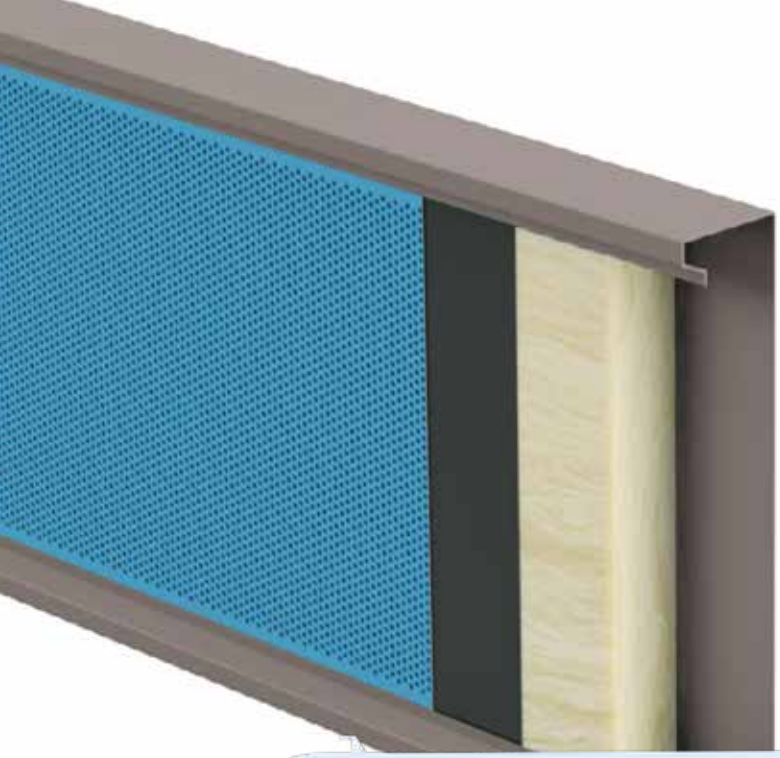


NOISE ABSORBENT

A500-ALU

Noise is unwanted sound and has a major impact on society. Along roads and railways, noise-reducing solutions are therefore required for comfort in nearby surroundings. The efficient and easy-to-install noise absorber can be varied in height and its mechanical and acoustic properties meet all standards.

TECHNICAL DESCRIPTION

The noise absorber A500-ALU is designed especially to reduce the noise generated by road and rail traffic. The properties of the absorbent are adapted to the specific noise signature of cars and trains to obtain optimal noise reduction. The design with steel post feet and posts with deep guide rails makes the mechanical performance strong enough to withstand strong winds and pressure wave from high-speed trains. Materials and surface treatment are chosen for minimal maintenance and with an estimated lifespan of 40+ years.

BARRIER COMPOSITION

The noise absorber cassette is made of Magnelis ZM120 steel plate in corrosivity class C4 according to EN ISO 12944-2:2017. It has a powder-coated finish, which can be customized in any RAL color. The absorber unit is made up of sound-absorbing mineral wool/stone wool of varying density and thickness, depending on which sound-absorbing properties are required. The absorbent consists of four layers, two of which are metal layers. The absorber's inward-facing surface (directed towards the noise source) consists of a zinc-magnesium coated aluminum plate, where 36% of the surface is provided with holes to create the conditions for sound absorption, while the absorber's outward-facing surface is covered by a smooth reflective steel sheet, The noise absorber is mounted between vertically placed HEB/HEA profiles to achieve the desired total height. The distance between the posts can be varied.

ACOUSTIC AND MECHANICAL PERFORMANCE REFERENCE STANDARDS

UNE EN-EN 1794-1:2003; UNE EN-EN 1794-2:2003;
UNE EN 1793-1:1998; UNE EN 1793-2:1998

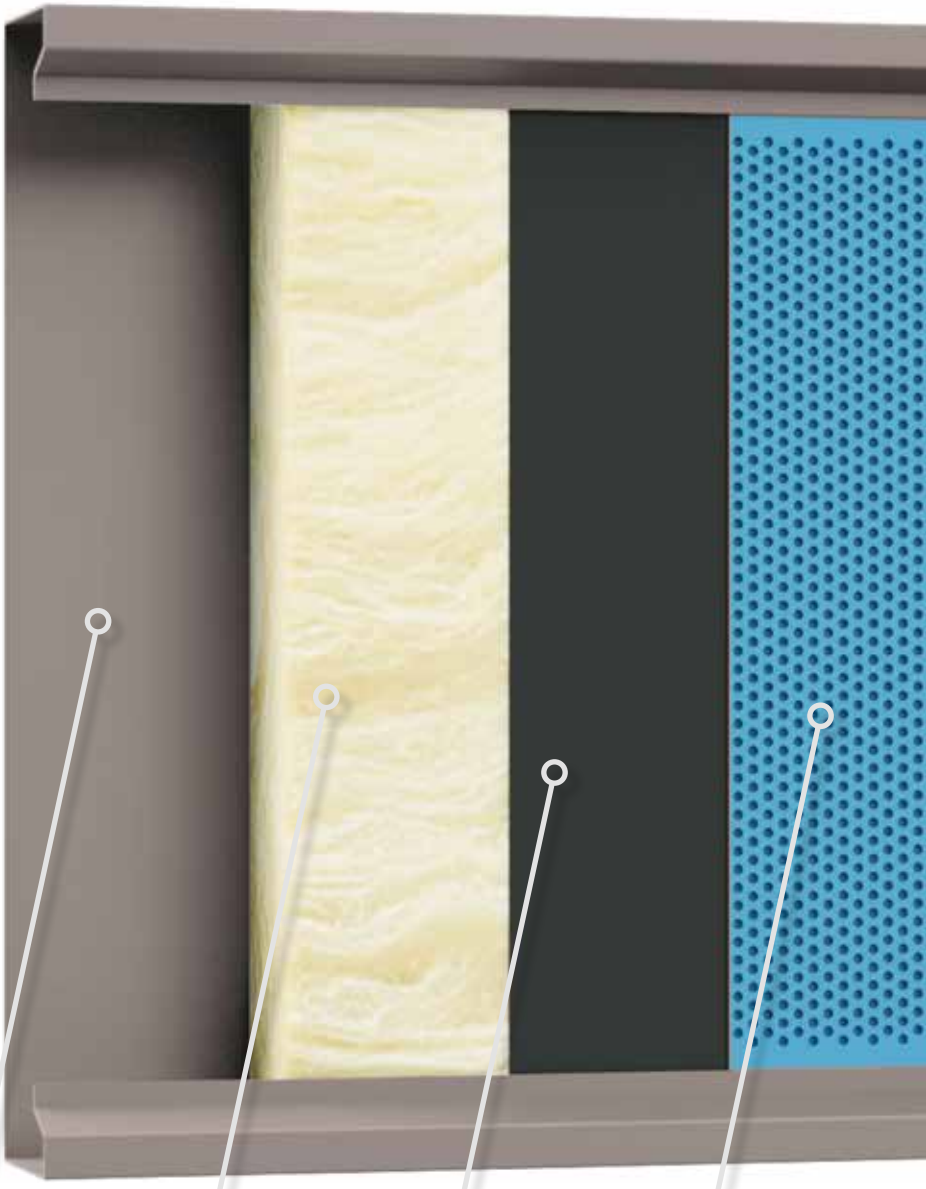
ACOUSTIC PROPERTIES:
B3 class - DL_R = 33 dB
A5 class - DL_α = 20 dB

MECHANICAL FEATURES:
Meets the standard UNE EN 1794-1.
Design load: Up to 300 kg/m^2 for a span of 4 m.
Test load: Up to 450 kg/m^2 for a span of 4 m.

OVERALL DIMENSIONS:
LENGTH: 2000–6000 mm
HEIGHT: 500 mm (300 mm, 400 mm)
THICKNESS: 96 mm

STRUCTURAL COMPONENTS
The support structure of the noise absorber is made up of HEA/HEB metal profiles with a welded bottom plate, both in quality S275JR according to the standard EN 10025. Bottom plate and profiles are galvanized and powder coated in accordance with the requirements of the standards EN 1461 and EN 15773. The post profiles are anchored to the foundations using anchor bolts of varying diameter, length and class depending on the specific requirements of each individual project.

COST EFFECTIVE
The noise absorber is mounted without rivets or bolts and can be installed manually by two persons. The solution is very suitable for environments where fatigue problems may arise, for example in high-speed rail construction projects. The entire assembly is time-efficient and for even faster assembly, several cassettes can be linked together and lifted into place as one unit.



TRANSPARENT SOLUTION

A500-ALU can be combined with 500 mm high transparent Hammerglass cassettes (T500), or with entire transparent Hammerglass panes in 3x2 meter size.

FLEXIBLE

The A500-ALU is highly adaptable and blends into most environments. The panels, which are primed with zinc magnesium, are then powder coated in any color - and can also be obtained with integrated plant support.

The A500-ALU has a height of 500 mm and running lengths of 2000 - 6000 mm. The system is tested and certified for high-speed rail up to 5 meters high and 5 meters wide.

ISO 9001 CERTIFIED · ISO 14001 CERTIFIED · ISO 45001 CERTIFIED · CE

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