

NOISE BARRIER iNFRA KOMBI

To meet the high demands for both noise reduction and visual openness in modern road and railway environments, the CE-marked iNFRA KOMBI noise barrier combines a transparent upper section with a sound-absorbing lower section.

The solution is based on our well-proven GROUND-2 system, complemented by an integrated sound absorber in the lower section of the barrier. The result is a cost-effective, robust and long-lasting solution for modern infrastructure projects.

- 12 mm or 15 mm hard-coated polycarbonate panels installed between hot-dip galvanised HEA sections or square hollow sections (SHS/RHS). The structure is embedded 200 mm into the ground and can be constructed to heights of up to 6 metres.
- The upper edge of the panel is reinforced with either a 45° bend or a steel U-profile, which can also be used as an earthing rail where required.
- On the side facing the noise source, a 40 mm thick and 1200 mm high Hammerfoam sound-absorbing mat is installed. Hammerfoam is UV-resistant, chemical-resistant and self-extinguishing when exposed to fire. The material retains its sound absorption performance even under wet conditions.
- The polycarbonate panel is provided with a black bird-protection pattern. On the lower 1200 mm, the print provides full coverage, meaning that the absorber is visible only from the noise-source side.

Minimal maintenance

The hard-coated polycarbonate panel features a nanotechnology-based surface treatment that helps prevent contaminants from exhaust fumes, oil and asphalt from adhering to the surface. Graffiti can be removed using standard graffiti-removal chemicals. The estimated service life exceeds 40 years. Hammerfoam can be cleaned using low-pressure power washing and treated with standard graffiti-removal agents.

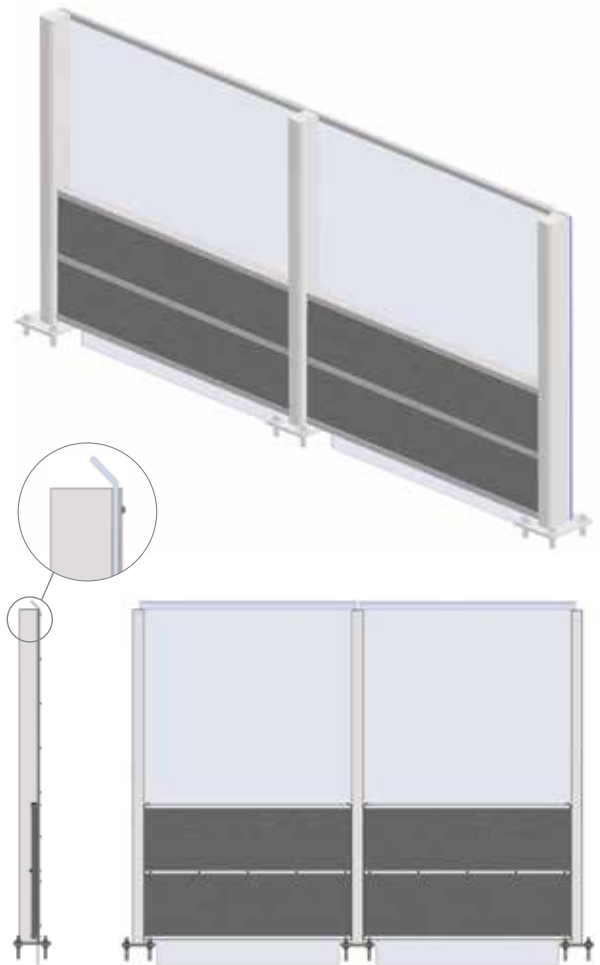
Design and installation

During the design phase, consideration must be given to ground conditions, geographical location, train speeds, snow-ploughing conditions and noise reduction requirements.

For optimum results, we recommend involving HMG iNFRA at an early stage of the concept and design process.

Draft regulatory text

"Noise barrier shall be CE-marked and constructed in 12 mm chemical-resistant (must withstand acetone), hard-coated polycarbonate offering at least 99.96% UV protection, type Hammerglass. The barrier shall be installed on hot-dip galvanised posts in accordance with the HMG iNFRA system iNFRA KOMBI or equivalent. On the side facing the noise source, the lower section of the barrier shall be fitted with a sound-absorbing mat, type Hammerfoam, with a sound absorption value of at least 9 dB DL_{α} ."



TECHNICAL SPECIFICATIONS iNFRA KOMBI

COMPLETE NOISE BARRIER

Max cc posts	2000 mm
Max height	6000 mm
Hammerglass dimension	12 mm, 15 mm
Hammerfoam standard height	1200 mm
Hammerfoam thickness	40 mm

ACOUSTIC PROPERTIES HAMMERGLASS

Noise reduction class Hammerglass	B3
Noise reduction Hammerglass	34 dB R_W 30 dB DL_R
Noise reduction Hammerglass + Hammerfoam	37 dB R_W 31 dB DL_R

ACOUSTIC PROPERTIES HAMMERFOAM

Noise reduction class Hammerfoam	A3
Noise absorption road (EN 1793-1)	9 dB DL_{α}
Air sound insulation in-situ road (EN 1793-5)	5 dB DL_{RI}
Noise absorption railway (EN 16272-1)	11 dB DL_{α}
Air sound insulation in-situ railway (EN 16272-3-2)	6 dB DL_{RI}

MECHANICAL PROPERTIES HAMMERFOAM

Resistance to fire (EN 1794-2)	Class 1
Resistance to frost and road salt (EN 14474)	Approved
Stone chippings (EN 1794-1)	Approved
Life expectancy (EN 14389)	50 years