NOISE BARRIER SYSTEM POST-FREE

A complete CE-marked system free from bearing steel posts, for installation on a bridge, on a retaining wall or in the ground. The screen solution consists of 12 mm Hammerglass mounted in a low steel angle.

The Hammerglass panels are bent in three levels. The construction is supported by a 90 degree vertical bend which is also complemented by two smaller 45 degree bends at the top and bottom for extra stability.

Each individual panel is fixed in a rigid steel angle and connected to the next panel with fixpoints. The steel angle consists of a horizontal base and a vertical part with varying height (400-600 mm) adapted to the height of the Hammerglass screen.

When the installation allows, the panels can be buried in 15-20 cm in macadam/shingle to prevent the transmission of noise beneath the barrier.

The Hammerglass panels can be supplied with patterns, in order to prevent bird collisions.

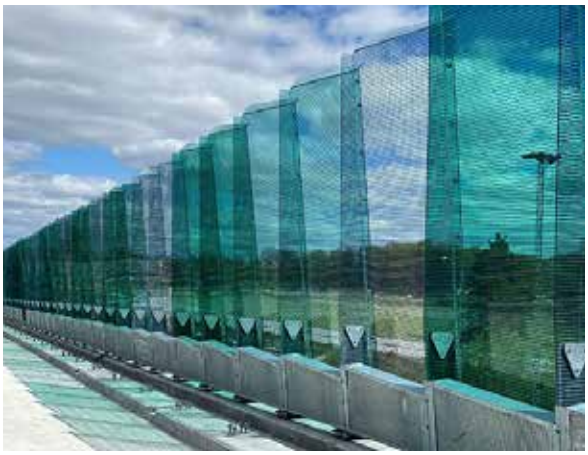
Sustainability

Since steel is more expensive than polycarbonate, Post-free comes with a lower price tag. As the amount of steel used is less than in a barrier with whole posts, the carbon footprint is only 57% compared to a traditional screen. The use of nanotechnology minimises the maintenance costs as waste is rinsed off by the rain, and graffiti does not stick as easily as it does on ordinary glass. EPD calculated according to EN 15804.

Draft regulatory text

”Noise barrier shall be CE-marked according to EN 14388 and constructed without traditional posts, type HMG iNFRA system Post-free or equivalent, and meet the following or better performance requirements: Acoustic requirements class B3 in accordance with EN 1793-2. Mechanical requirements in accordance with EN 1794-1:2011 and EN 1794-2. Wind load calculated in accordance with EN 1991-1-4 Terrain type II. Snow load requirements according to EN 1794-1:2011 Annex E, based on a plowing speed of 60 km/h. Stone chip-pings: The barrier must be tested and fulfill the requirements of EN 1794-1:2011 Annex C Stone chippings. The supplier shall certify, with a certificate, that the barrier has been tested by an accredited inspection body, and meets the above mentioned performance requirements.”

”Transparent screen shall be made of 12 mm chemical-resistant, hard-coated, and abrasion-resistant polycarbonate, with a silicon oxide surface coating UV-resistant to 99.96% or higher, type Hammerglass. The panel shall come with a 10-year warranty against yellowing and a minimum service life of 40 years, withstand graffiti cleaning with chemicals, including acetone. The supplier shall confirm these properties with certificate from the manufacturer, and include documentation proving that the material has been tested and has the specified UV resistance.”



TECHNICAL SPECIFICATIONS POST-FREE	
Max cc distance	1500 mm
Max Hammerglass height	5500 mm
Steel angle, horizontal part	450 x 400 x 15 mm
Steel angle, vertical part	450 x (400-600) x 15 mm
Hammerglass dimension	12 mm
Can be printed with bird patterns	Yes
Environmental Product Declaration	Yes, EPD calculated (EN 15804)
Noise reduction class	B3 (12 mm)
Noise reduction 12 mm Noise reduction 15 mm Noise reduction 17 mm	34 dB R_W and 30 dB DL_R 35 dB R_W 36 dB R_W