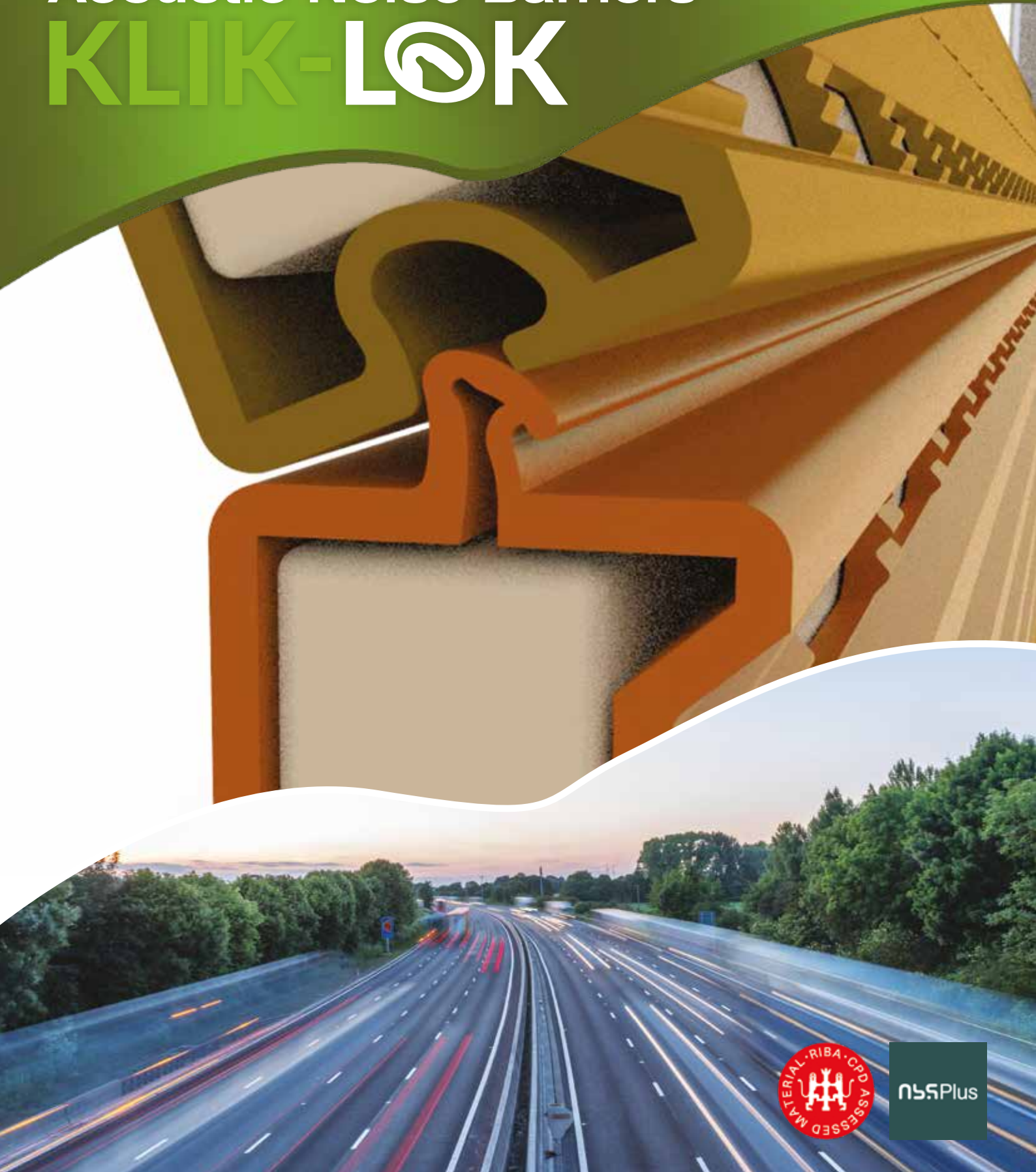


# GenAcoustic High Performance Acoustic Noise Barriers KLIK-LOK

GenAcoustic

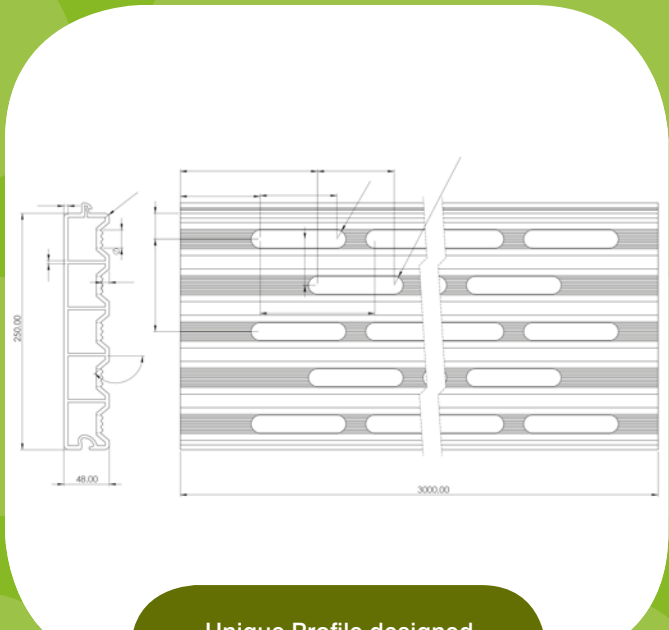


NSRPlus

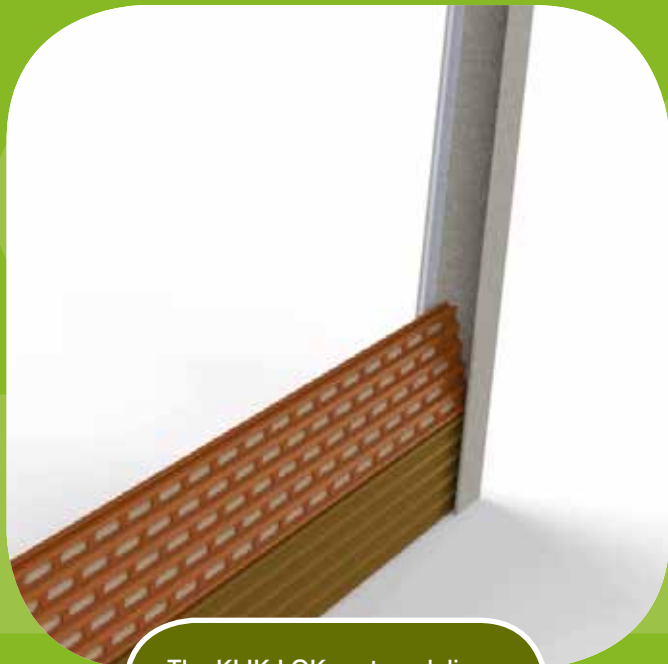
01384 636 588 [www.genworkltd.co.uk](http://www.genworkltd.co.uk)



The complete assembly gives exceptional Mechanical and Stability Performance.



Unique Profile designed to maximise Acoustic Performance.



The KLIK-LOK system delivers positive location locking each cassette together.



Simple and effective assembly reducing on site plant and time.

# GenAcoustic – High Performance Acoustic Noise Barriers

Noise pollution and its effects on our surroundings and quality of life is ever increasing and has become much more widely appreciated by Planners, Architects, Designers and all Construction stake holders. The need to protect people from its effects are now accepted without question and have been enshrined in all codes of practice and design guidelines in schemes particularly involving road, and rail.

**GenAcoustics** offer a range of purpose designed environmental noise barrier solutions specifically aimed at infrastructure projects involving road and rail as well as industrial applications where noise reduction is of critical importance. We are absolutely confident, that with our range of high-performance noise reflective and absorbent systems, that we can offer a solution that fits with your demanding requirements.

**GenAcoustics** noise barrier systems are manufactured from 90% recycled HDPE with 10% prime additives. This high-performance material is essential to deliver our unique and innovative product design, which allows our cassettes to **Klik-Lok** together providing exceptional system strength. Sound engineers have designed the system and product to maximise its reflective and sound absorbing properties, which will perform for 20 – 30 years without any significant acoustic performance loss, unlike many natural material solutions such as timber which warps, splits and cracks over time.

Our system is designed to be highly durable. Consisting of cassettes with grooved faces which **Klik-Lok** together to produce a very strong and rigid assembly which will not warp or shrink, which is rot proof and resistant to aggressive environments including salt spray and oil throughout its life.

All cassettes are manufactured and assembled in a dedicated facility which has a controlled environment designed to deliver high a quality product on time, right first time, every time, direct to site.





# The GenAcoustics benefits

Project stakeholders are always searching for innovative, sustainable, safer and quicker system solutions that deliver on performance and aesthetic. GenAcoustics have designed its systems by consulting and listening to clients, customers and contract installers. There are a number of key benefits which will be important to these key partners:

**Safety of Workers** - which is vital to delivering a successful project. The GenAcoustic systems address this issue in a number of ways. The cassettes designed for strength, performance and structural rigidity are also light weight in design, a 3m cassette weighing in at 13kg for reflective or 15kg for absorbent which means that:

- Barriers up to 3m high can be erected without plant/MEWP or machinery to lift panels or posts into position. The most common cause of accidents on site occur where labour and plant combine. Keeping Workers Safe.
- Difficult access and restricted working areas – the GenAcoustic System is designed to be light weight, structurally sound and very simple to install. Each 3m cassette is less than 15kg – cassettes can be easily carried to point of installation - this means that barriers at heights of 2 and 3m require no heavy lifting plant; simplifying the distribution of materials and increasing access to difficult areas around the site.
- The Lack of heavy plant on site means that the installation of the GenAcoustic System provides for quieter installation.

## Speed of Installation

- All Cassettes are prefabricated and delivered direct to site which makes for quick installation, easy distribution and minimises plant on site. The GenAcoustic system delivers on tight contract programmes, reduces traffic management disruption, and overall cost.

## Life Time Cost

From the Design of our product, to the materials used in manufacture and simple installation all combine to deliver environmental noise barriers which are durable, fit for purpose and provide years of maintenance free acoustic performance without any significant degradation. Delivering on Best Value and lowest Life Time Cost.

## Acoustic Performance

Whichever system you choose, Reflective or Absorbent; all of our systems have been purpose designed for performance to maximise reflective and sound absorbing qualities. High density surfaces for reflectivity combine with high density mineral infill (complete with membrane to prevent slump and protect against birds removing infill) to ensure high acoustic absorbency performance. All designs are certified to the very latest European Standards.

## Stability of Noise Barrier

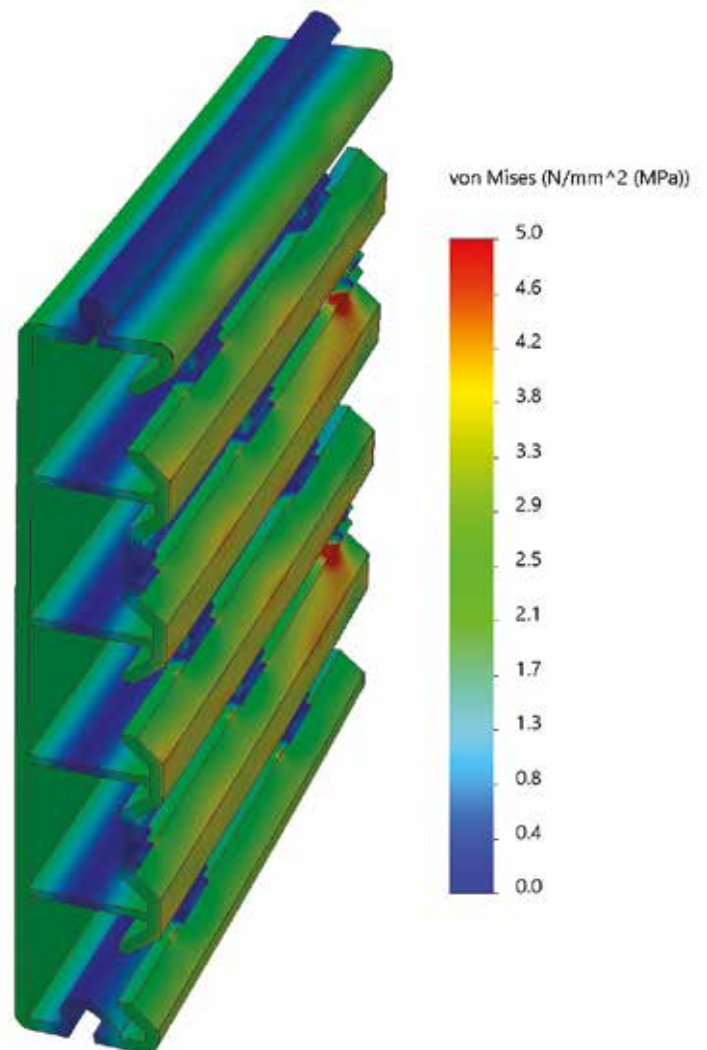
The materials used throughout our production process combine with our design which optimises the geometry of our cassette and guarantees that our product will not warp or shrink. Our unique **Klik-Lok** system ensures that the cassettes provide a very positive connection with each other when installed and form an excellent acoustic seal – making it structurally sound over its life.

## Environmental Credentials

Materials used in the production of GenAcoustic Environmental Noise Barrier Systems are based on recycled plastics with only 10% primary additives which means at the end of the products life it can be recycled again delivering clients sustainable construction projects which are environmentally sound.

## Quality Process

GenAcoustic Noise Barriers are manufactured to the highest quality standards, pre-assembled in the factory and delivered directly to site to ensure that projects are supplied on time and right first time, every time.



## System Options

### Reflective or Absorbent

GenAcoustic Systems are available in noise reflective or absorbent options both designed to maximise reflectivity or absorption in accordance to European specifications B3 and A4 ratings.

### Cassette Span/Post Centres

Due to the unique design Cassettes can be supplied in a variety of lengths up to 6m long. Cassettes can be easily cut on site to facilitate the inevitable make up lengths.

### Height of Assembled Noise Barrier

Maximum assembled height 20m but requires additional horizontal supports at 4m height intervals.

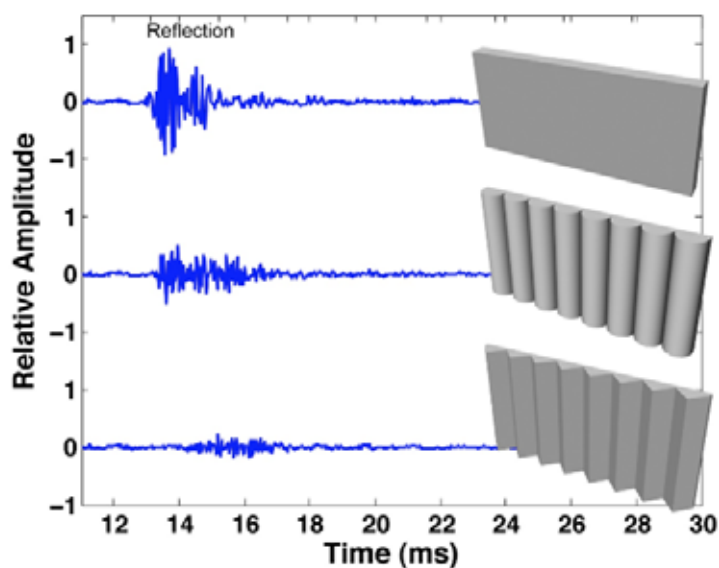
## Best in Class at Noise Absorption

System	Factor	Performance	Maintenance	Sustainability	Installed price index by rank
Timber Absorptive	Strong				1
	Medium	X			
	Weak		X	X	
Metal Absorptive	Strong	X	X		1.5
	Medium			X	
	Weak				
Klik-Lok Reflective	Strong	X	X	X	1
	Medium				
	Weak				
Klik-Lok Absorptive	Strong	X	X	X	1.1
	Medium				
	Weak				

### Indicative Noise levels

SOURCE/ACTIVITY	INDICATIVE NOISE LEVEL [DB(A)]
Threshold of hearing	0
Rural night-time background	20-40
Quiet Bedroom	35
Wind farm at 350m	35-45
Busy Road at 5KM	35-45
Car at 65km/h at 100m	55
Busy general office	60
Conversation	60
Truck at 50km/h at 100m	65
City Traffic at 5m	75-85
Pneumatic drill at 7m	95
Jet aircraft at 250m	105
Threshold of pain	140

### Surface Effect on Sound



# GenAcoustic Environmental Noise Reflective Panel – Data Sheet

GenAcoustic Reflective Noise Barriers are manufactured from 90% recycled HDPE with 10% prime additives; this high-performance material is an essential component of our unique and innovative cassette design. The cassette is extruded with reinforcement beams between front and rear face to create the basic structure... in order to give increased structural rigidity, corrugation has been formed into the front face resulting in greatly enhanced performance.

The real innovation in terms of structural performance is the **Klik-Lok** feature which provides a positive connection from one cassette to another.

The corrugation to the front face and the high-density surfaces have been optimised by our sound engineers to maximise reflective acoustic performance, this coupled with its high levels of acoustic sealing makes GenAcoustic one of the best in class for acoustic barrier performance. We recommend a range of Universal Beam Sections dependent on height requirements with either Bolt Down fixing, Dig in Concrete Foundations or for where space to establish foundations is a problem Piled Posts.

## Material Specification

### Composite Extruded Panel

90% HDPE with UV stabilised outer coating and 10% Prime additives.

### Locking Means

Unique **Klik-Lok** moulded Upper and Lower edges of the Extruded Panel facilitates a very positive location and helps in forming a high level of acoustic seal.

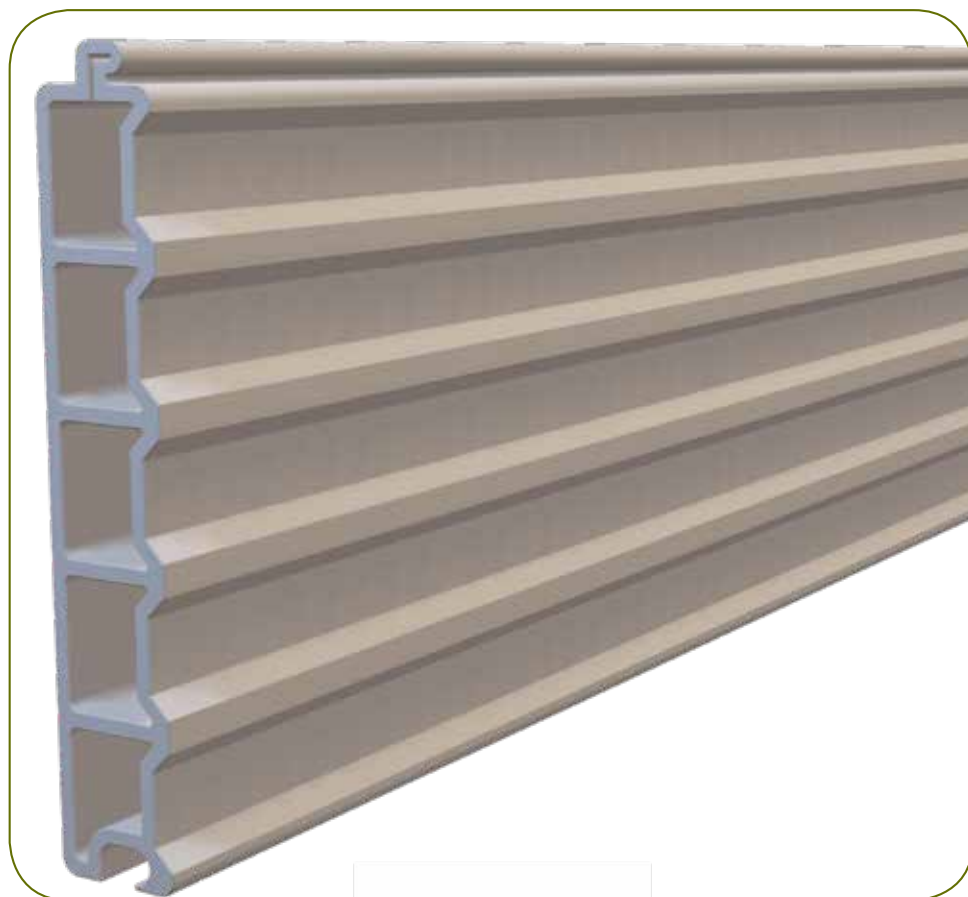
## Performance

### Acoustic Reflectance

Tested in accordance to European specifications and achieving B3. BS EN 1793-1 & 2 also BS EN ISO 1672-1 & 2 (TTP15/16) UKAS .

### Mechanical Performance

Maximum Span of 3m according to BSEN1794:2003-7 Stability under Wind and Dynamic Loads



# GenAcoustic Environmental Noise Absorptive Panel – Data Sheet

**GenAcoustic** Absorptive Noise Barriers are manufactured from 90% recycled HDPE with 10% prime additives; this high-performance material is an essential component of our unique and innovative cassette design. The cassette is extruded with reinforcement beams between front and rear face to create the basic structure... in order to give increased structural rigidity corrugation has been formed into the front face resulting in greatly enhanced performance.

The real innovation in terms of structural performance is the **Klik-Lok** feature which provides a positive connection from one cassette to another.

The internal reinforcement beams are used to house the mineral fibre infill which is faced with a woven protective membrane which combine to give the cassette its high levels of acoustic absorbency. The front face of the cassette has an open slot pattern to allow sound wave passage and absorbency.

The corrugation to the front face and the high-density surfaces have been optimised by our sound engineers to maximise reflective acoustic performance, this coupled with its high levels of acoustic sealing makes **GenAcoustic** one of the best in class for acoustic barrier performance. We recommend a range of Universal Beam Sections dependent on height requirements with either Bolt Down fixing, Dig in Concrete Foundations or for where space to establish foundations is a problem Piled Posts.

## Material Specification

### Composite Extruded Panel

90% HDPE with UV stabilised outer coating and 10% Prime additives.

### High Density Mineral Fibre

Mineral wool 100kg/M3 density

### Glass Fibre Membrane

Woven HDPE 130gsm membrane

### Locking Means

Unique **Klik-Lok** moulded Upper and Lower edges of the Extruded Panel facilitates a very positive fixing and forming a high level of acoustic seal.

## Performance

### Acoustic Absorbency

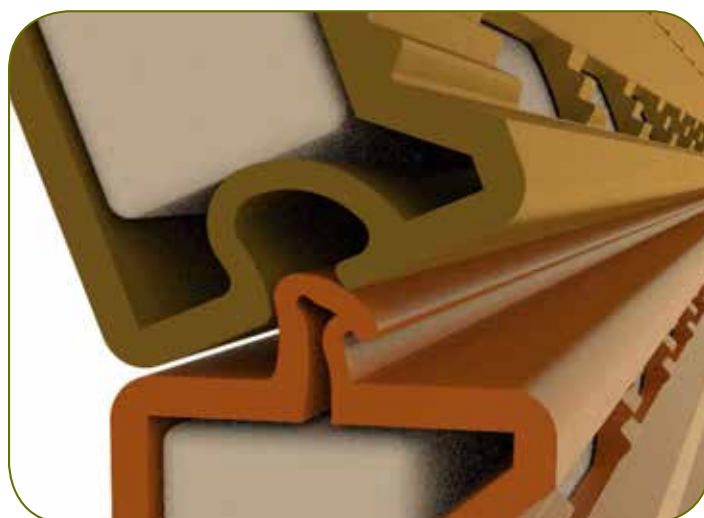
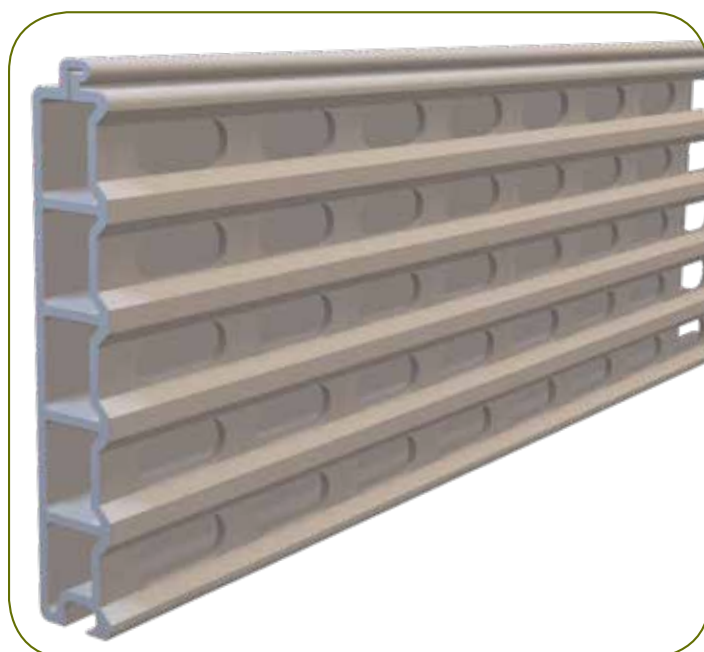
Category A3 according to BSEN1793-1: Intrinsic Characteristics of Airborne Sound Absorption.

### Acoustic Reflectance

Category B3 according to BSEN1793-2: Intrinsic Characteristics of Airborne Sound Insulation.

### Mechanical Performance

Maximum Span of 3m according to BSEN1794:2003-7 Stability under Wind and Dynamic Loads.







**EVENTS**



**HIGHWAYS**



**RAIL**



**CONSTRUCTION**



**RESIDENTIAL**

**GenAcoustic**

**KLIK-LOK**

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