



KOHLHAUER® Grid-Insulation-Systems (GIS) – QUALITY OF LIFE

KOHLHAUER ALUFERA® – SIMPLE / PROVEN / ECONOMICAL

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NEW <

Optimized design
Large-sized formats
Economical design





KOHLHAUER **ALUFERA**® - UTMOST FUNCTIONALITY FOR ECONOMICAL NOISE BARRIER

After the successful introduction of the patented plantable system KOHLHAUER PLANTA®, Kohlhauser is presenting the new all-round Grid-Insulation-System (GIS) KOHLHAUER **ALUFERA**®.

Based on the proven design of our PLANTA system, this elements had been specially developed for the needs of the new trans-european future markets, without having to renounce the proven construction principle. The result is a new and attractive large-sized noise barrier element, with the well-known and highly efficient acoustical properties and the easy to assemble, patented technology.

APPLICATION

KOHLHAUER **ALUFERA**[®] noise barrier systems perfectly combine an appealing finish with sustainable construction and high technical requirements. All KOHLHAUER **ALUFERA**[®] Grid-Insulation-Systems (GIS) have been tested by renowned institutes for noise insulation, sound absorptivity, wind load, frost and road salt resistance, durability, etc.

BENEFITS

- Innovative aluminium system frame for increased stability
- Robust tongue and groove interlock for easy stacking of multiple elements
- More solid vertical bars for even higher noise barriers
- Ventilation and drain ducts for constant noise barrier performance
- Innovative click-fastening system for various vertical member sections (patent pending) reduces the assembly time effort at the construction site
- Modular standard components (4.960 x 1.000 mm, 4.960 x 1.500 mm and 3.960 x 1.000 mm, 3.960 x 1.500 mm) for a cost efficient realisation of large-scale projects
- Various height compensation modules (stackable) for easy adaptation to different landscapes
- Extensive colour range for all system components allows for individual design
- CE-certified quality



PRODUCT SPECIFICATIONS

- Excellent sound-insulating and highly absorptive performance. Classified in B3 and A3 according to ZTV-Lsw on both sides (optionally available in A4)
- Robust element structure for a consistent natural appearance, without planting
- All used materials are completely recyclable
- Extremely high aging and corrosion resistance
- High UV and colour resistance for all used materials
- Compatible to other KOHLHAUER® noise barrier elements

TECHNICAL SPECIFICATIONS

- **Noise Insulation:**
Category B3 accord. DIN EN 1793-2
- **Sound absorption:**
Category A3-(A4) accord. DIN EN 1793-1
- **Weight:** approx. 35 kg/m²
- **Windload:** Standard version up to 1,4 kN/m² (for additional requirements up to 2,1 kN/m²)
- **Load bending** tested accord. to DIN EN 1794-1
- **Fire resistance:** assigned to category A1 accord. to EN/ISO 1716 and 1182
- **Minimum service live:** 30 years
- **Width:** 122 mm
- Tested on dynamic load through snow impact

Reasonable modifications, meeting our high quality requirements and supporting the further product development, are reserved.

CLASSIFICATION OF THE ACOUSTIC CHARACTERISTICS

According DIN EN ISO 717-1 as well as DIN EN 1793		
	Sound insulation	Absorption
ALUFERA	RW (C;Ctr) = 34 (-2;-6) dB; DL _R 28 dB (Category B3)	DL _a = 11 dB (Category A3)
ALUFERA-2.6	RW (C;Ctr) = 32 (-1;-5) dB; DL _R 27 dB (Category B3)	DL _a = 12 dB (Category A4)



KOHLHAUER® Grid-Insulation-System (GIS) – KOHLHAUER **ALUFERA**® with screen printing

NOISE BARRIER IS QUALITY OF LIFE

Noise in residential areas is often perceived as annoying. This is where man and noise are in a direct conflict. KOHLHAUER **ALUFERA**® barriers help to ease the situation, supporting the life quality of our environment.

Bypass roads, highways and motorways are a permanent source of noise. Protecting the residents from annoying noise puts some special requirements on noise barriers.

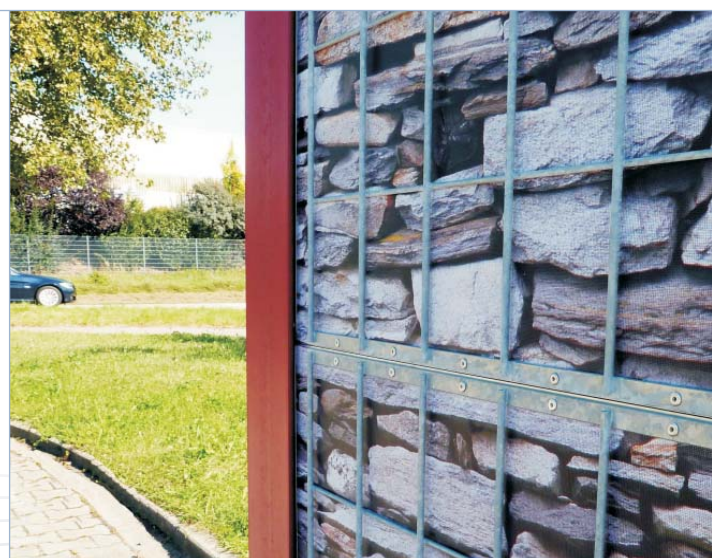
Not only inner city areas require flexible noise barrier solutions can be placed easily between existing objects. Whenever there is a limited space availability, suitable noise barrier solutions that integrate seamlessly with the environment are required. KOHLHAUER **ALUFERA**®'s post foundation system provides permanent security.

More and more engineers, architects and authorities rely on KOHLHAUER® Grid-Insulation-Systems (GIS) and its variations for its high sustainability and effectivity.



KOHLHAUER **ALUFERA**® (GIS)

Two coloured element due to different protection net



KOHLHAUER **ALUFERA**® (GIS)

Printed 'gabions optics'

SYSTEM LAYOUT

BASIC ELEMENTS

- The basic elements are available in sizes of 3.960 x 1.000 / 3.960 x 1.500 / 4.960 x 1.000 / 4.960 x 1.500 mm
- Elements can be displaced using the reusable eyebolts and rivet nuts integrated in the upper chord
- Standard equipment: innovative aluminium concept frame, galvanised (80 µ) load-transferring steel grid, protection net (grey, mesh sizes: 2 x 2 mm), Kohlhauer RDS 160 insulation, classes B3/A3, incl. 2 fixing springs
- The elements are fixed on the pole using patent-pending fixing springs

ADVANCED ELEMENTS

- **Height compensation 100**, to compensate for various ground shapes, as base elements for ground integration or as a design variant between the elements
- **Height compensation 25**, for use between the elements
- **Cover panel**, for a proper finish of stacked elements with innovative click technology
- **Adjustment** to pole HEA-U 160 and larger available
- **Protection nets** disponible in various colors for an enhanced visual appearance of the noise barrier
- **Screen printing** for individual scope of design
- **Sound insulation foils** for meeting special sound absorption (A4) requirements
- **Selected RAL colours**, for a high quality visual design of the noise barrier (see colour chart)

COLOUR CHART

Red Tones



RAL 3001
Signal Red



RAL 3003
Ruby Red

Blue Tone



RAL 5017
Traffic Blue

Green Tones



RAL 6005
Moss Green



RAL 6011
Reseda Green

Metallic effect



RAL 9007
Grey Aluminium



RAL 9006
White Aluminium

White



RAL 9010
Pure White

Grey Tones

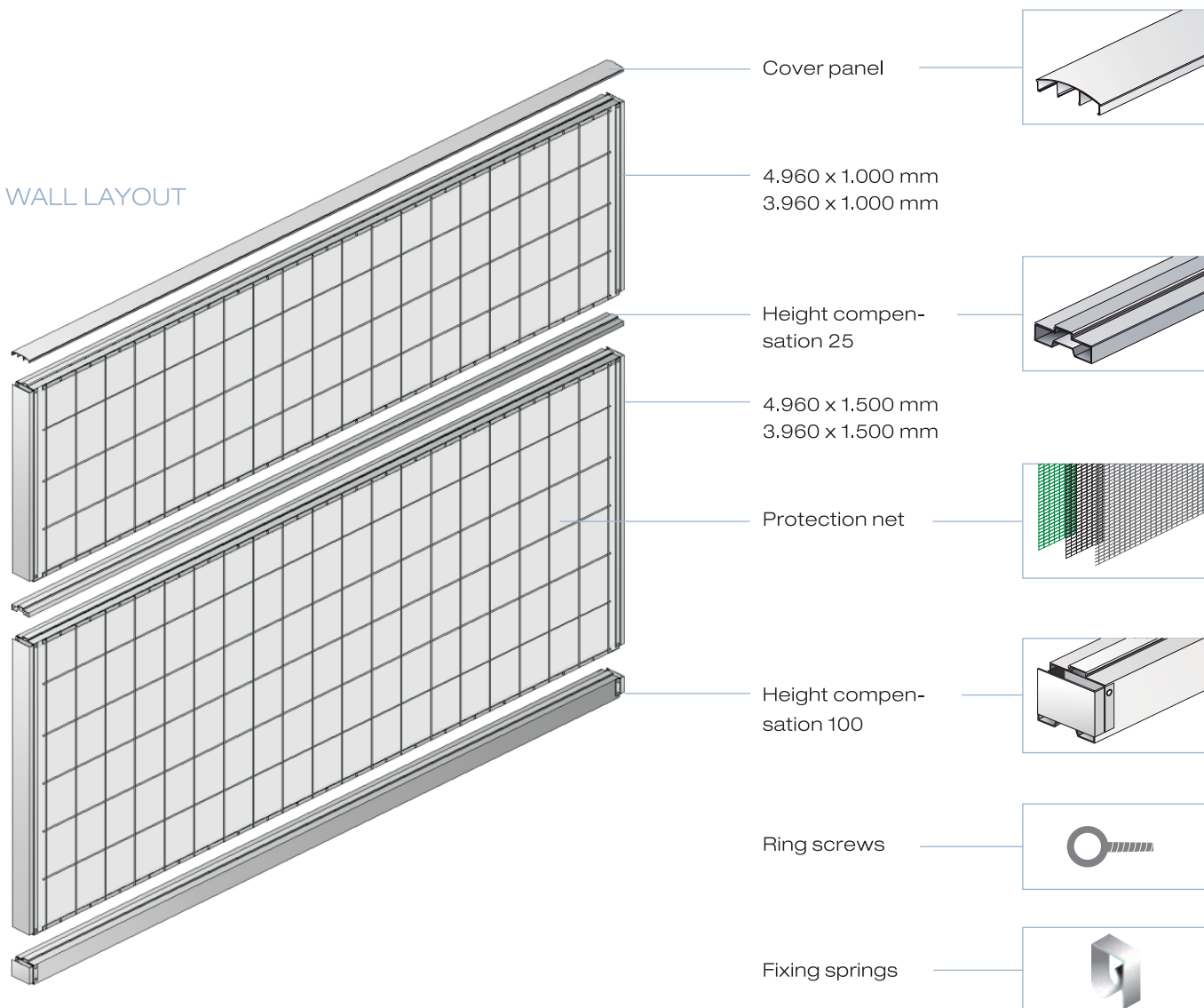


RAL 7004
Signal Grey



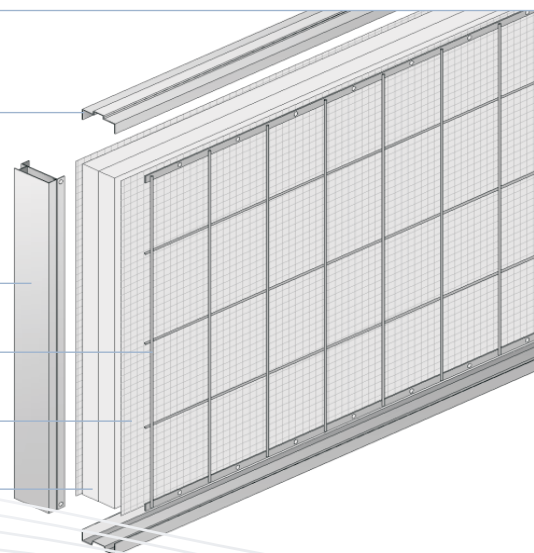
RAL 7035
Light Grey

WALL LAYOUT



WALL LAYOUT (FROM OUTSIDE TO INSIDE)

- Innovative aluminium structure frame with tongue and groove section
- Lateral section for supporting the fixing spring
- Load-transferring, galvanised steel grid
- UV-resistant protection net
- Double-layer, high dense mineral wool, RAL quality certificate





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MORE KOHLHAUER PRODUCTS



Transparent, reflecting respectively
absorbent noise barrier systems
with transparency and glare shield.



The plantable noise barrier -
eco-friendly, sustainable and
highly functional.



Double benefit: Noise barrier
combined with sustainable
power generation through
solar technology.

