

**A good  
acoustic solution  
can be very  
decorative.  
And do other  
things besides.**

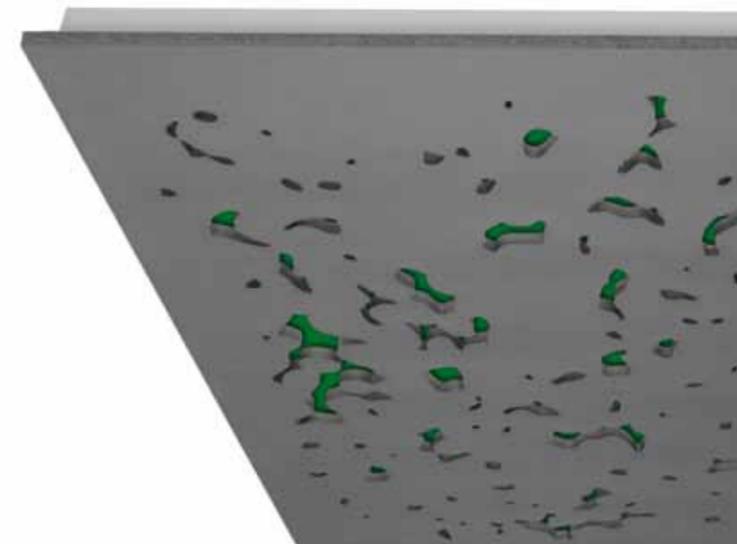
# Optimising room acoustics.

## Calming the space.

Modern architecture tends to prefer smooth and 'hard' surfaces. While concrete, glass and solid wood can look very attractive, the application of these materials on their own can result in poor room acoustics. The length of the sound reverberation time is the main determinant of the quality of the room acoustics. Long reverberation times are perceived as uncomfortable and undesirable. In offices and public rooms this effect is particularly negative for both staff and visitors.

Bruag has developed a system which contributes significantly to improving room acoustics, using ceiling panels, wall elements or structured ceiling elements. This system boasts excellent test values. And in addition, it offers unique design options. Which makes the system stand out from the rest.

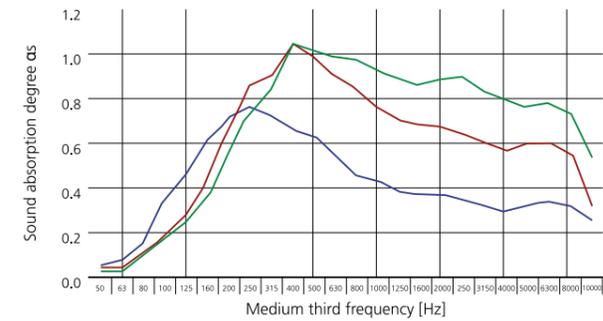
**To see  
why  
one  
hears  
better.**



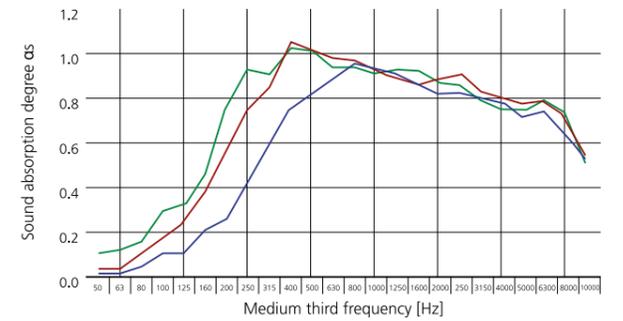
# A system with effect. And creativity.

The acoustic system consists of a frame, carrier boards with different types of perforations, textile finish in a range of colours and an absorber element. The basic dimensions of the elements are 1020 x 2040 mm with an overall construction depth of 100 mm. These dimensions can be varied to suit individual projects.

Sound tests carried out at the LGA in Nuremberg demonstrate the results that can be achieved with different types of perforations (patterns in the surface). The samples used in the tests had surfaces with different degrees of openness, i.e. 8, 20 and 40 percent. The construction depth of the elements varied between 50, 100 and 200 mm, with the 100 mm-deep element yielding an excellent comparative value.



- 8% Proportion of holes / perforation type 10200\_KI.  $D_{aw} = 0.40_{NRC} = 0.55$
- 20% Proportion of holes / perforation type 50402\_KI.  $C_{aw} = 0.70_{NRC} = 0.80$
- 40% Proportion of holes / perforation type 50100\_KI.  $A_{aw} = 0.90_{NRC} = 0.90$



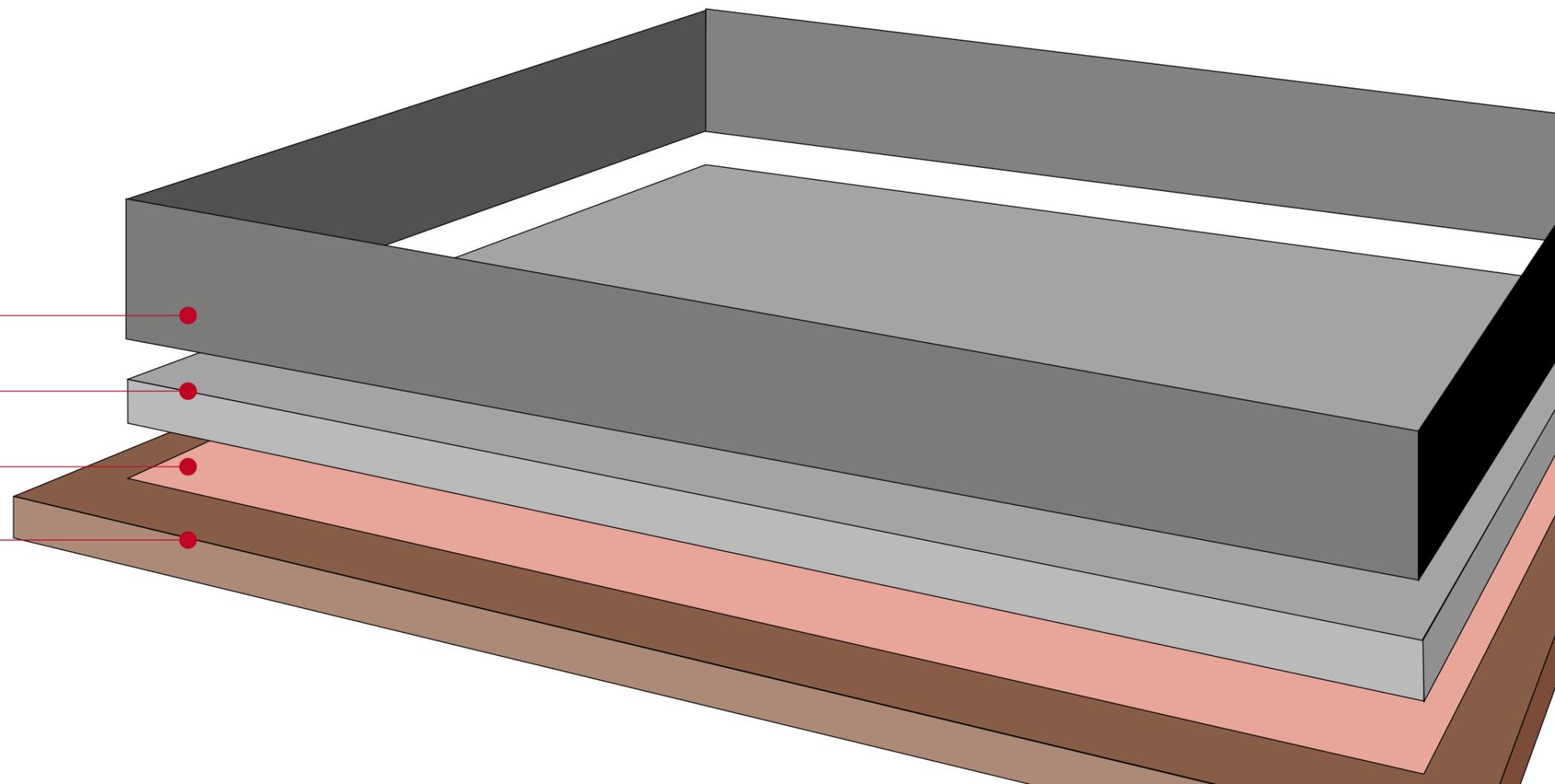
- Construction depth 50mm\_KI.  $C_{aw} = 0.70_{NRC} = 0.75$
- Construction depth 100mm\_KI.  $A_{aw} = 0.90_{NRC} = 0.90$
- Construction depth 200mm\_KI.  $A_{aw} = 0.90_{NRC} = 0.95$

**Installation frame**

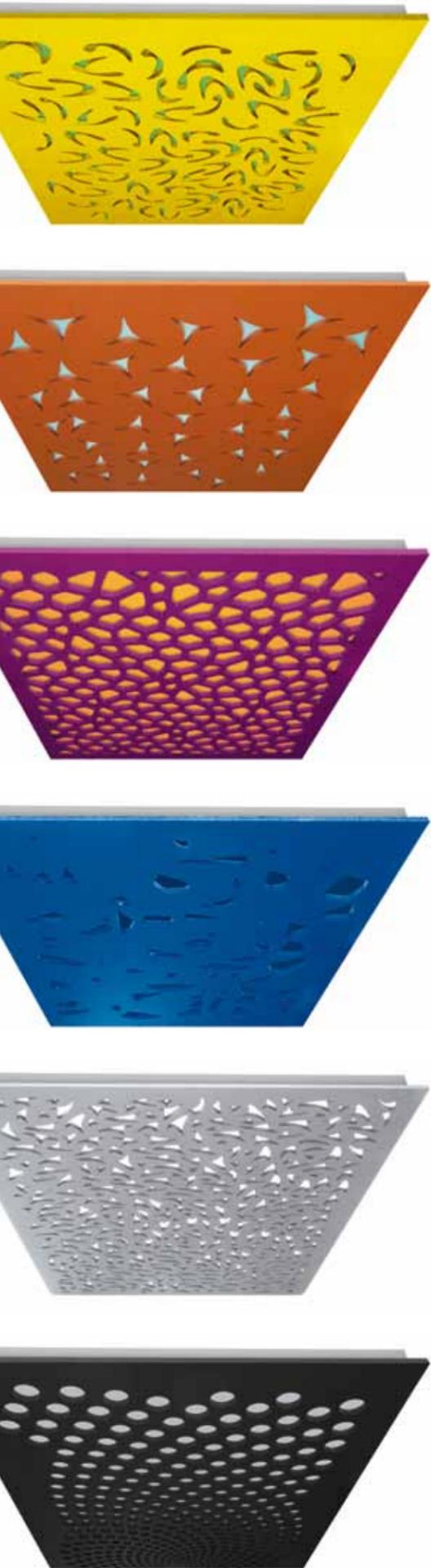
**Insulation board**

**Textile material**

**Carrier board**



# Designing interiors. And gaining character.



The company's archive of patterns contains over 70 different perforation patterns available to customers. But there are no limits to the implementation of new ideas. Provided always that the number of holes in the board does not significantly reduce its structural strength. Designs can be varied by using patterns, logos or traditional shapes to provide a unique acoustic solution. This is also the reason why this system is suitable for any type of building style. From modern to classical through to heritage buildings. For example, the design elements found in art nouveau buildings provide a rich source for creative solutions. And turn the necessity of an acoustic device into an excellent enhancement of any room.



# Colour your life.

NCS S Edition 2



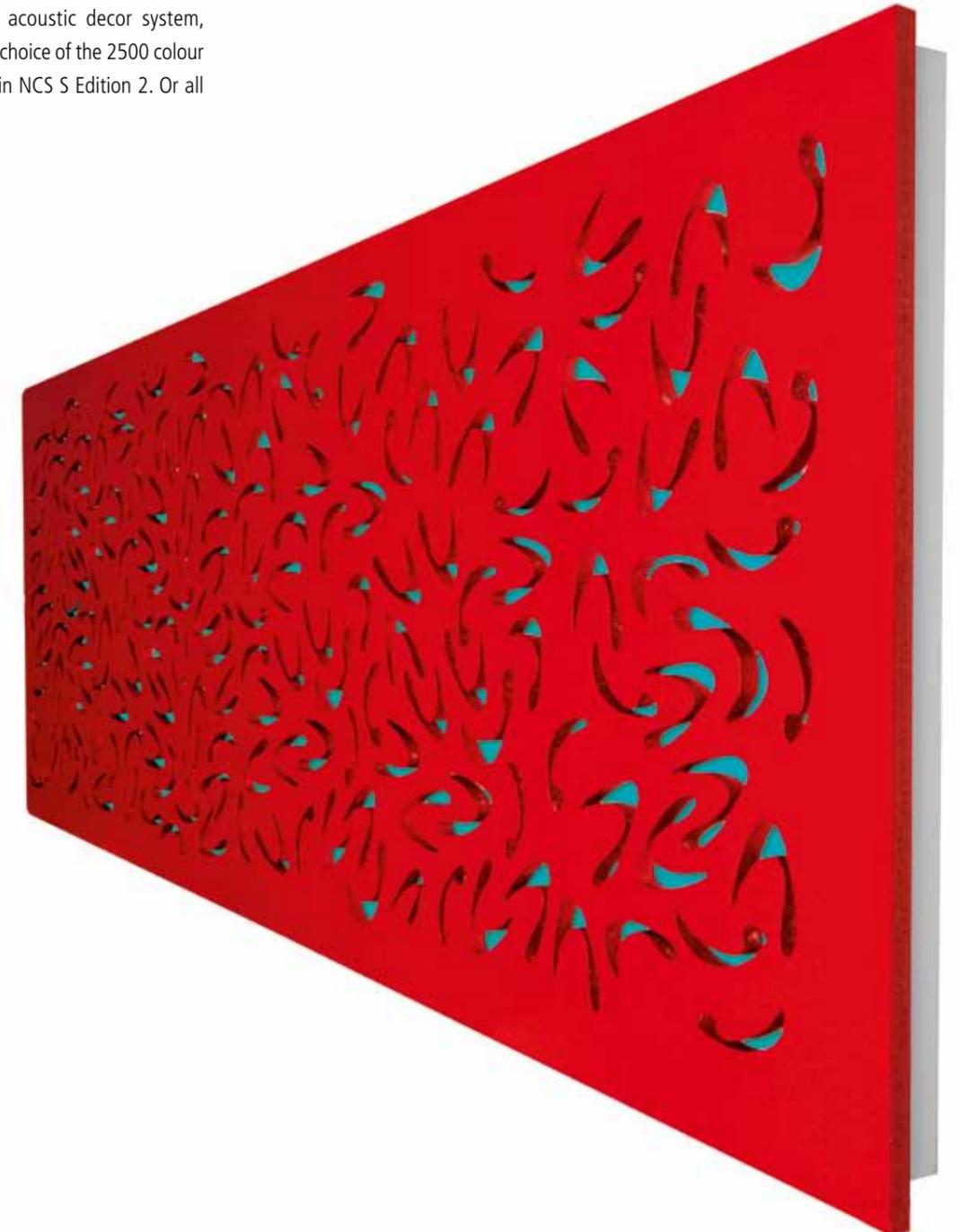
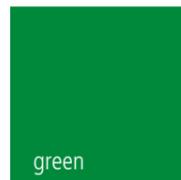
Colour is one of the most important elements in interior design. Together with shapes and textures they create any desired effect. Which helps interior designers to explore many design options. In the case of our acoustic decor system, designers have a choice of the 2500 colour shades included in NCS S Edition 2. Or all

popular RAL colours. Together with the six textile colours available, this results in more than 10,000 possible variations. This is sure to provide the right combination for any taste. If not, search for the right solution.

## Textile finish



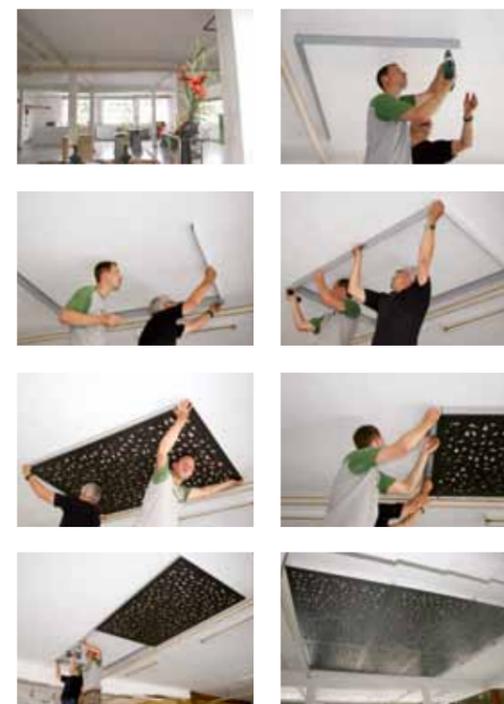
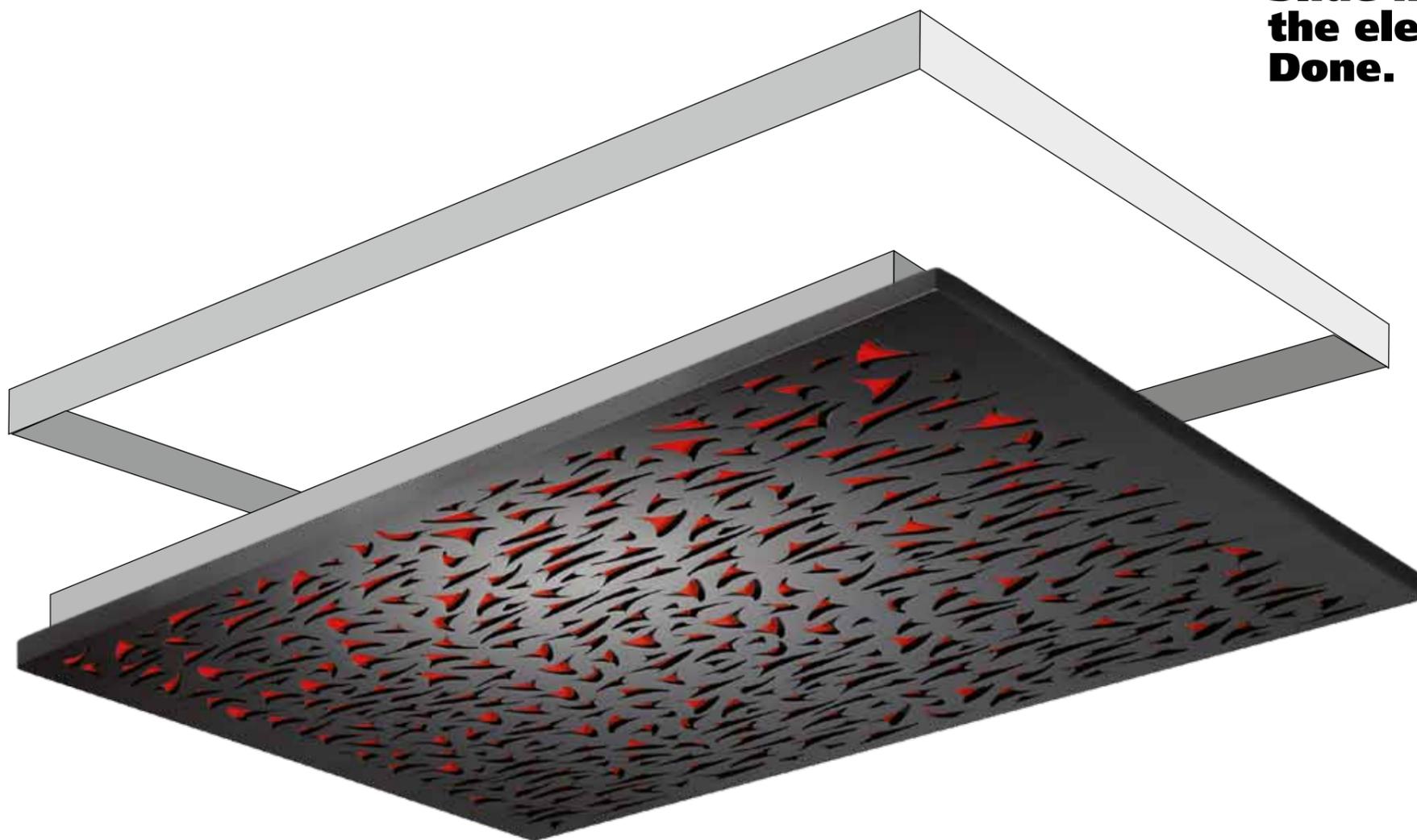
## Special colours



# A system to suit eyes, ears and budgets.

The simple metal frame with integrated fixing mechanism makes for fast and easy installation. The frame is fixed to walls or ceilings using suitable dowel fixings; the pre-assembled acoustic element is then inserted into the frame. When the click is heard, the panel is perfectly fitted and aligned with the grid. A large room's acoustics can be improved by two fitters in a very short time.

**Fix the frame to wall or ceiling. Slide in the element. Done.**



**Iftode Universal SNC**  
**Galati, Romania**  
**Bd. George Cosbuc nr.156, 350**  
**Tel./Fax: 0236.310555**  
**office350@universalconstruct.ro**  
**www.universalconstruct.ro**