

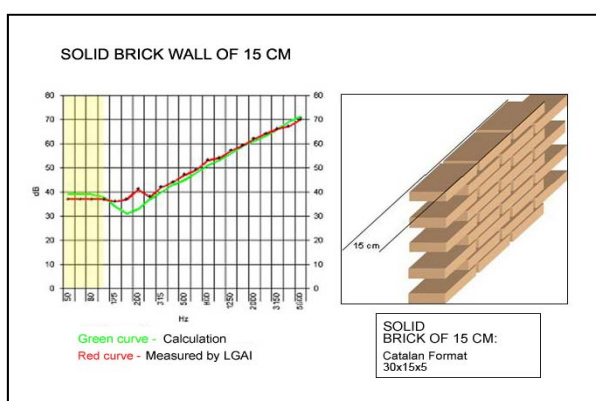
dBKAisla is a software for the calculation of acoustic insulation developed by *Ingeniería para el Control del Ruido (ICR)*. It is capable of easily calculating wall insulation: single-layer, multi-layer (double, triple, ...) and combined walls (wall or door with windows, etc.) depending on their physical properties.

This application is granted a higher versatility thanks to the forecast, according to the calculated sound insulation of single panels, of the global acoustic insulation between two rooms. In this sense, new combinations of rooms are constantly being under study.

Easily calculate insulations of single, multiple and combined wall

The programme shows the results according to the frequency (1/3 octave), in the global value of the insulation against pink noise in **dB_A** and it also calculates the insulation index **R_w (C;C_{tr})** according to the UNE-EN ISO 717-1 standard.

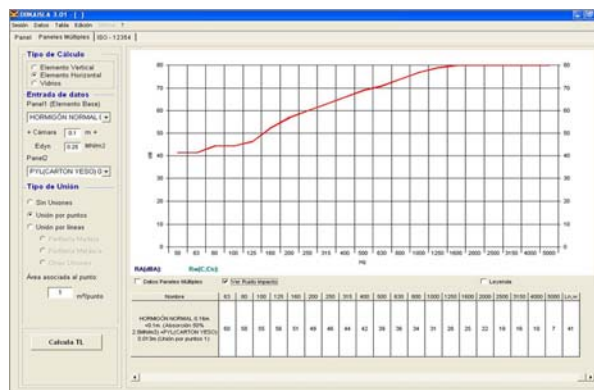
The results are the best proof of this part of the software, because after a joint validation project with the LGAI Technological Center, a maximum difference of less than **3dB_A** was obtained between the predicted values and the ones measured in the laboratory.



Calculated values versus measured values

The simplicity of this new user interface makes it, almost intuitively, an essential and efficient tool when solving troublesome noise transmissions. Thanks to dBKAisla it is possible to provide solutions specific to any kind of problem whatsoever.

This multilingual software offers a variety of elements, such as diagrams, images and a browser that searches by product and enterprise, and is intended for architects, engineers, builders and acoustics consultants to speed up the calculation process.



Main software interface

ICR offers a detailed report which compares the results of dBKAisla with the results of the most important Laboratories

The data base contains a wide collection of acoustic characteristics of the most common generic materials in building and industry as well as the (R') insulation systems developed by the best laboratories.

Moreover, the software calculation engine incorporates construction solutions developed by the most important manufacturers in the sector.

Besides, the user can create his own data base of the materials he most frequently uses.

Provide of reports and supporting sheets

This software enables the user to generate comprehensive reports with the format required by regulation ISO-140. This provides data for the whole working process.

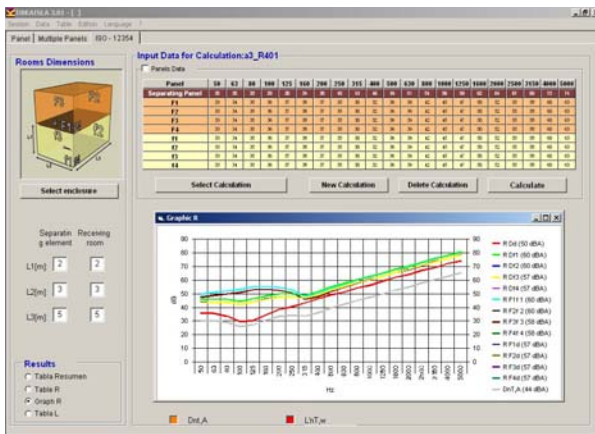
The calculation results also contain specification sheets for the user to assess and state whether there is compliance with current regulation or not.

dBKAisla 3.01

As far as single-layer and multi-layer walls are concerned, dBKAisla is the latest version of the software that allows for the calculation of both the airborne sound and impact sound insulation in different materials.

As regards impact noise, the user can obtain results from the calculation of homogeneous floor structure.

For the calculation of multi-layer panels, it has a range of sound-absorbing materials within the partition construction elements, according to the airflow resistance. This engine distinguishes between wood and metal profiles. In addition, it allows for the calculation of Delta R (insulation improvement).

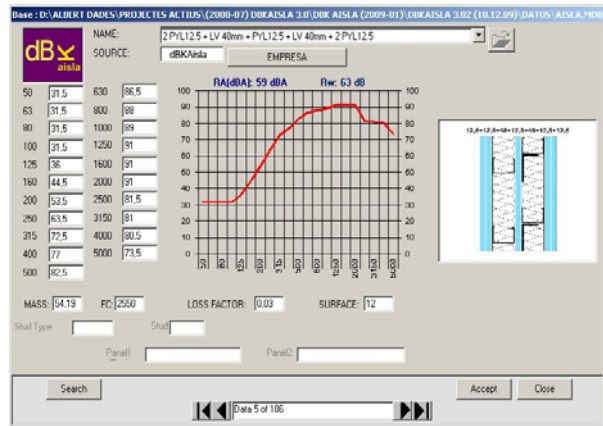


Test calculation of a premises

It is possible to calculate the airborne sound and impact sound insulation between rooms. Therefore, this data base feature comprises materials with both insulation systems.

The material data base constantly maintains a significant number of products from the best manufacturers in the country. This data base is structured in single records of each company containing the company data as well as the product data with images. In order that this data base be highly practical, the user has a search engine by product and enterprise.

Moreover, the software provides results of the insulation calculation in $D_{nT,A}$ and $L'_{nT,W}$ and offers different choices to calculate the acoustic insulation between adjacent, overlapping rooms and enclosures with one edge in common.



Data base interface

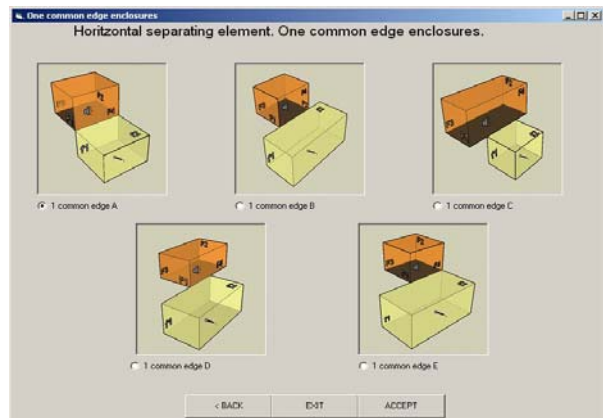
The latest innovation

This tool is permanently in development in order to be up to date. Thus, the version is constantly incorporating updates.

dBKAisla 3.01 brings the global value $L_{n,w}$ into the calculation of impact sound insulation of single-layer and multi-layer panels. Moreover, whenever the user calculates the impact sound in multi-layer panels, the dynamic stiffness, among other parameters shall be evaluated by the application on the basis of the elastic material modulus E_{dyn} .

The user will be able to copy all the result charts of the working session in other software.

At the present, the reports from the final calculation process are based on the airborne sound and impact sound of single-layer and multi-layer panels.



Types of enclosures with one edge in common