

# KALIBAT

## Calculation of linear heat loss coefficient of building thermal bridges

KaLiBat carries out the calculation of linear heat loss coefficients of building thermal bridges.

In geometries 2D, it makes it possible to obtain this coefficient quickly : calculation is done in one to two minutes for slab-on-grade floors, and in approximately ten seconds for other configurations. The manageable cases are very numerous, by combination of the materials and of the dimensions. The calculation rules are in conformity with the European standards EN10211 and EN13370.

The screenshot displays the KaLiBat software interface. At the top, the title bar reads "Project - KaLiBat". Below it is a menu bar with "File", "Data", "Display", and "Print". The main window is divided into several sections:

- Geometry selection:** A dropdown menu at the top left shows "Wall / Wall, Y geometry to exterior".
- Resistances of parts A & B:** A table showing:

Part	Resistance (m <sup>2</sup> .°C/W)
Part A	2,270
Part B	2,270
- Thermal bridge coefficient:** A field showing "Linear Coeff" as 0,77 W/m.°C, with a "Calculate" button and a "Result" label.
- Geometry parameters:** A list of layers with checkboxes, material dropdowns, and thickness values in mm:

Layer	Material	Thickness (mm)
Int. load-bearing wall	Aggregate concrete	200
Wall (Part B)	Aggregate concrete	200
I. l.-b. wall layer 1	Wall insulation	80
I. l.-b. wall layer 2	Wall insulation	80
I. l.-b. wall layer 3	Wall insulation	80
Wall layer 1	Wall insulation	80
Wall layer 2	Wall insulation	80
Wall layer 3	Wall insulation	80
- Distribution of result:** A cross-section diagram of a wall. The interior side (left) is labeled "Interior 16%". The exterior side (right) is labeled "Interior 84%". The wall layers are labeled "Wall insulation" and "Aggregate concrete".
- Function key F1 = Help:** A button at the bottom left.

KaLiBat has a graphic interface allowing an immediate visualization of the geometry, with its data. Its use is similar to that of a calculator.

The software has functionalities of read/write on file and impression of the results.

Possibility of modifying the materials and the surface resistances, of replacing the "interiors" and "exteriors" by different rooms : the combination of all these parameters has the effect that one can treat a very large number of cases.

The analysis of the results shows that the precision of the software is better than 30% for the slab-on-grade floors, better than 12 % for other configurations wall/wall or wall/floor (sometimes 15/20% if presence of a screed).

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**Required hardware:** Windows 95/98/NT/2000/XP, Pentium, 2 Mo RAM, 3 Mo disk

## **Base Prices**

1 post : 250 euros net of VAT (299 euros TTC for 19,6 % VAT)  
n posts ("site" licence) : sliding scale tariffs, consult us

## **Conditions**

These prices include free port. They include the licence itself, and a CD-ROM containing software and the technical documentation.

These prices are available till 31/12/2003. No VAT, but for France (19,6 %). For the "site" licences (an unlimited number of posts on the same workplace), consult us. For education, the price is 250 euros for a "site" licence.

Information and questions : by electronic mail (see contact).

Free version et demonstration available at the address : <http://jnsoft.chez.tiscali.fr/download.htm>.

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## **Demand of demonstration versions of CODYBA + CODYMUR + ARCHICUBE**

This software forms part of a family of tools of thermal building simulation (CoDyBa for the dynamic thermal analysis of a building, CoDyMur for the dynamic analysis of a wall subjected to varied thermal boundary conditions. ArchiCube is a simple tool for static thermal calculation in 3D).

(Demand to adress by email to Jean NOEL)

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