KORFF

HAWAPHON

For complete peace and silence

Mit Sicherheit
KORFF PRODUKTE
besser.

The principle: **Amazingly ingenious**

The fact that everything grows quiet and peaceful when our sound insulation panels are fitted is attributable to their ingenious method of construction. **HAWAPHON** is a moulded synthetic foil with compartments filled with steel pellets (1 mm diameter). The fact that the compartments are filled loosely guarantees a low flexural strength. The friction losses among the pellets give rise to a particularly high degree of internal attenuation. Thanks to the special structure of **HAWAPHON**, the effective air clearance achieved is equivalent to the actual shell clearance of the support panels in a construction of the double-wall type. This is a considerable advantage over other sound attenuating products with closed layers.

Applications:

HAWAPHON is fixed to the full surface of construction panels and is highly effective in insulating sound. It is suitable for use on doors , roller blind boxes, wooden beamed ceilings, facings on solid walls, facades, dividing walls and cupboard partitions.

Sound insulation: **Amazingly effective**

Others simply reduce

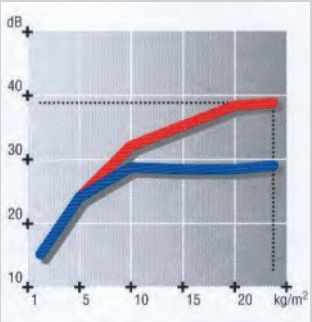
In the field of acoustics, one and one does not always equal two and ever greater mass does not always mean better insulation either. It is also the elastic properties and internal friction losses of a construction component that help determinate the insulation capacity. The illustration below shows how, especially in this weight range of construction panels (approx. 5-30 kg/m^2), the sound insulation breaks down with increasing mass as a result of the increasing flexural strength of the construction components.

HAWAPHON insulates twice over:

There are no such discordant notes with **HAWAPHON**, however, for the flexural strength remains constantly low in spite of a high mass. For example, KORFF 's ingenious peacemaker improves the sound insulation of a 19 mm thick chipboard panel from 30 dB to 38 dB. For the ear, this means almost a 50 % reduction.

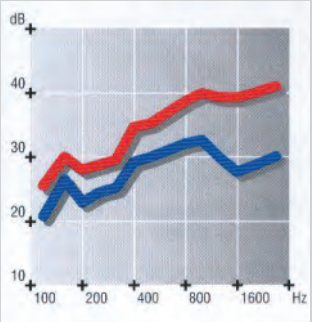
safe and reliable:

The HAWAPHON sound insulation panel let's you obtain the required dB-levels simply and conveniently



*The **blue line** shows the dependence of sound related mass of a singlelayer construction component.*

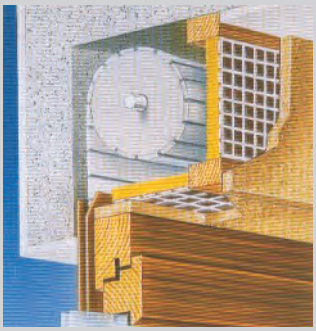
*The **red line** applies to panels of particularly low flexural strength..*



Blue line:
Sound insulation process of a simple chipboard panel.

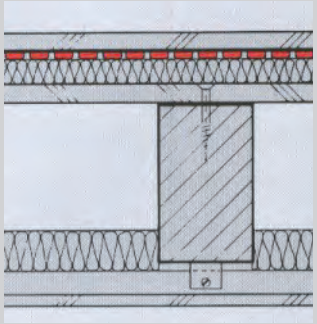
Red Line:
*Sound insulation process of a chipboard panel entirely covered with **HAWAPHON**.*

Sound insulation levels:
Amazingly convincing



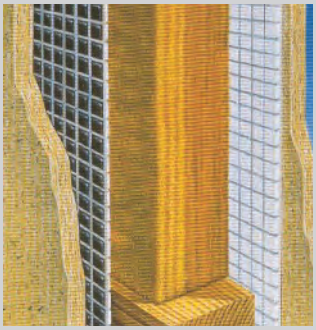
Up to 47 dB in rollblind boxes:

Completely lining a roller blind box with **HAWAPHON** and mineral fibre insulation materials is unbelievably effective.



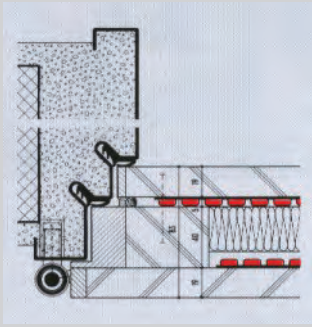
Up to 60 dB in wooden beamed ceilings:

In wooden skeleton constructions, **HAWAPHON** attains a rated air conduction insulation level of Aw = 60 dB (and even with equivalent solid constructions, the level is still Aw = 55dB). Therated standard impact sound level of the ceiling is Lnw = 45 dB (TSM = 18 dB). Thus the minimum requirements of DIN 4109 are surpassed by a remarkably large margin.



Up to 53 dB in partitions:

This figure applies to chipboard panel constructions with a minimum wall thickness of only 98 mm. This already meets the requirements of DIN 4109 (Rw=53dB) on minimum sound insulation of apartment partitioning walls.



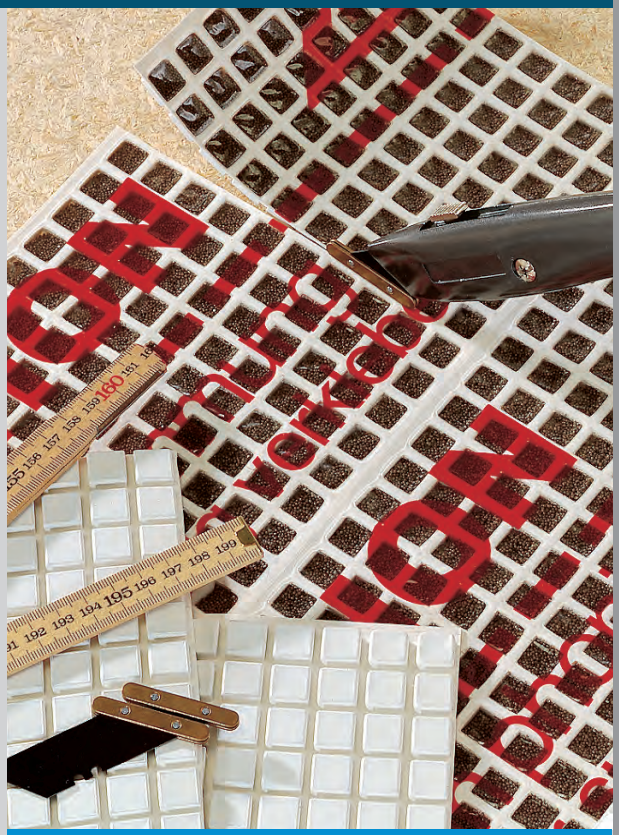
Up to 46 dB in multi-layer doors:

HAWAPHON meets the stringent requirements of DIN 4109 „sound insulation in buildings “: a sound - insulating door panel must indicate a 5 dB higher insulation level than the built-in ready-to-use door.

KORFF

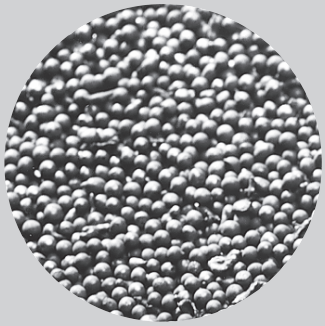
Outstanding sound insulation, trouble-free handling and KORFF quality:

HAWAPHON subdues everything – except your satisfaction!



Installation: **amazingly simple**

If it was only possible to ensure peace and quiet so simply in every situation ! **HAWAPHON** can easily be trimmed to the desired size using a normal cutter . Then all you need is some glue to fix the panel to the desired surface. You will soon realise why **HAWAPHON** is the name you hear the most often in the field of sound insulation.



Materials and insulating properties:

- Steel pellet filling, approx. 11 kg/m^2 → high mass
- Loose filling of compartments → low flexural strength
- Friction losses among the pellets when vibration

Delivery form:

1140 x 730 mm = 0,83 m^2 Panel weight approx. 9.2 kg

For calming:

All processing details and a lot of interesting facts about the sound and **HAWAPHON** you can find on our CD **"noise with HAWAPHON".**

The CD can be ordered from us for a nominal fee. Please note: The content of the CD is only available in German.

Please provide us with:
- ❏ Free advice about **HAWAPHON**
- ❏ Samples and price information
- ❏ Additional information

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