



VidiComfort

ELEMENTS FOR UNDERFLOOR HEATING/COOLING

Description

Knauf VidiComfort are gypsum fiberboard elements with factory-milled channels intended for installation of underfloor heating and/or cooling. These elements have a thickness* of 15 mm and the width/depth* of the channels is 10 mm. In these channels is embedded for example PE-Xc pipe Ø 10x1,25 mm through which the heating/cooling fluid is circulating. The distance* between the channels is 100 mm or 150 mm.

* Alternatives - available upon request

Board Data

Thickness: 15 mm
 Width: 600 mm
 Length: 600/1200 mm

*Other alternatives - available upon request
 - thickness up to 23 mm
 - other sizes and channels' dimensions
 - laminated with WF or EPS

Advantages

- Easy installation
- Low construction height system
- Short time to build
- Low surface mass
- Without the need for drying time compared to conventional cement based systems
- Highly responsive heating/cooling
- Energy-efficient and low temperature system for heating/cooling
- Avoiding high humidity in areas during application unlike standard cement based systems

Weight of the Boards

VidiComfort SK 15/600/1200 10/150	16,9 kg/m ²
VidiComfort SK 15/600/1200 10/150 Ret	16,8 kg/m ²
VidiComfort SK 15/600/1200 10/150 RetA	16,8 kg/m ²
VidiComfort SK 15/600/1200 10/100 Ret	16,1 kg/m ²
VidiComfort SK 15/600/600 10/100 RetAll	13,7 kg/m ²

Floor Coverings

The floor covering can be chosen according to the wishes and needs. There is no limitation for the used floor coverings as long as they are suitable for underfloor heating. The use of carpet or rug, rubber flooring or linoleum, wood flooring or laminate, tiles or natural stone is possible.

Technical Data

- Density: 1000-1250 kg/m³
- Thermal conductivity EN 12667:2004 $\lambda \leq 0,22$ W/mK
- Water diffusion resistance coefficient EN 12086:2013 $\mu = 15$
- Fire classification acc. to EN 13501: A2-s1,d0
- Deformation under change of humidity: 0,30 mm/m (at 20°C, change of relative humidity by 30%)

Application

- In new construction and renovations
- For interior use in buildings
- On wooden structures, concrete slabs and other substructures with own bearing capacity

Handling and installation

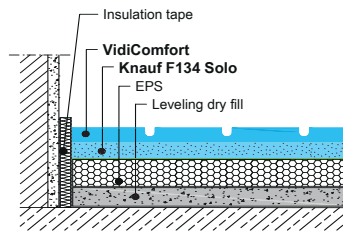
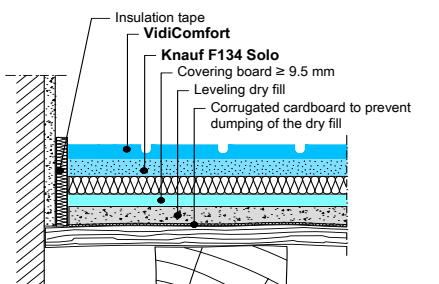
The milled elements can be laid for example on dry floor Knauf Vidifloor SOLO.

The foundation on which the elements will be laid must be absolutely flat and even so that they can fit tightly over their entire surface. If this requirement is not fulfilled the application of leveling layers (dry fill, correcting ground coat) is required.

Insulation tape is mounted between the walls and the floor elements to compensate on horizontal extensions. In order to provide thermal insulation polystyrene EPS, XPS mineral wool or other suitable materials may be applied.

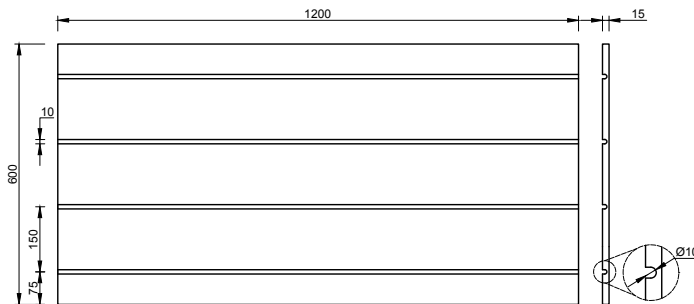
The milled elements are laid on the prepared surface and are possibly fixed. A pipe is laid in the channels for heating/cooling and it is sealed with Knauf Füllmasse GF. After drying you can proceed with the laying of the desired floor covering.

* Application examples



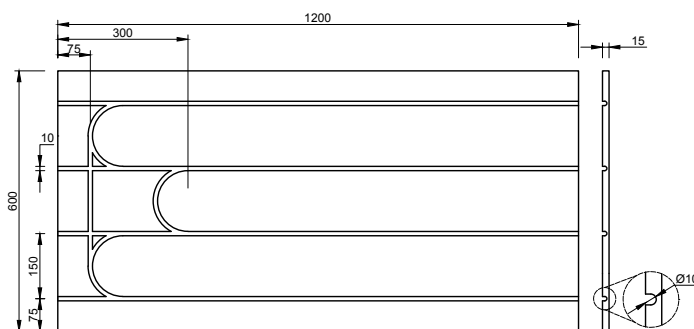
* VidiComfort is installed on substructures with own bearing capacity.

Floor elements /channels at 150 mm/



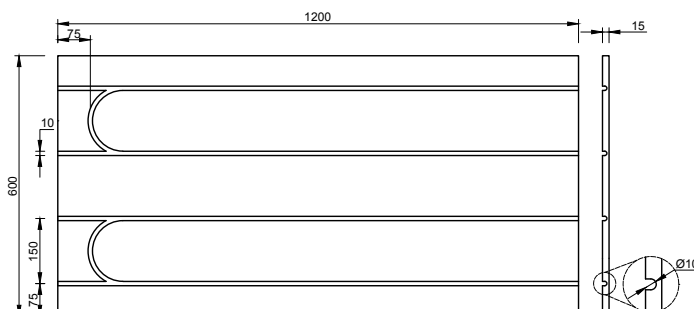
VIDICOMFORT SK 15/600/1200 10/150

Thickness	15 mm
Length	1200 mm
Width	600 mm
Width of the channels (only parallel)	10 mm
Distance between channels	150 mm



VIDICOMFORT SK 15/600/1200 10/150 Ret

Thickness	15 mm
Length	1200 mm
Width	600 mm
Width of the channels (parallel channels and channels for reversing the direction of the pipe)	10 mm
Distance between channels	150 mm

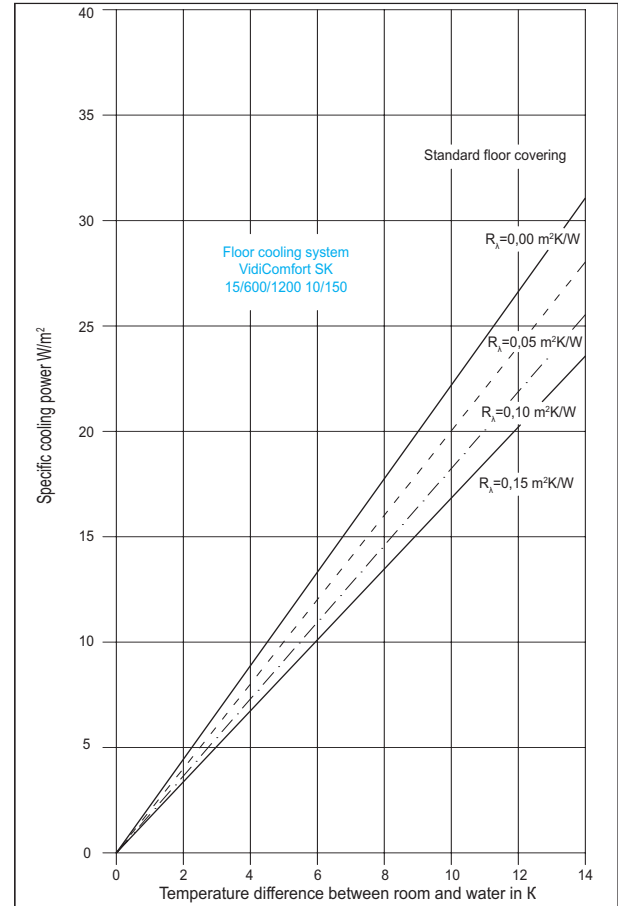
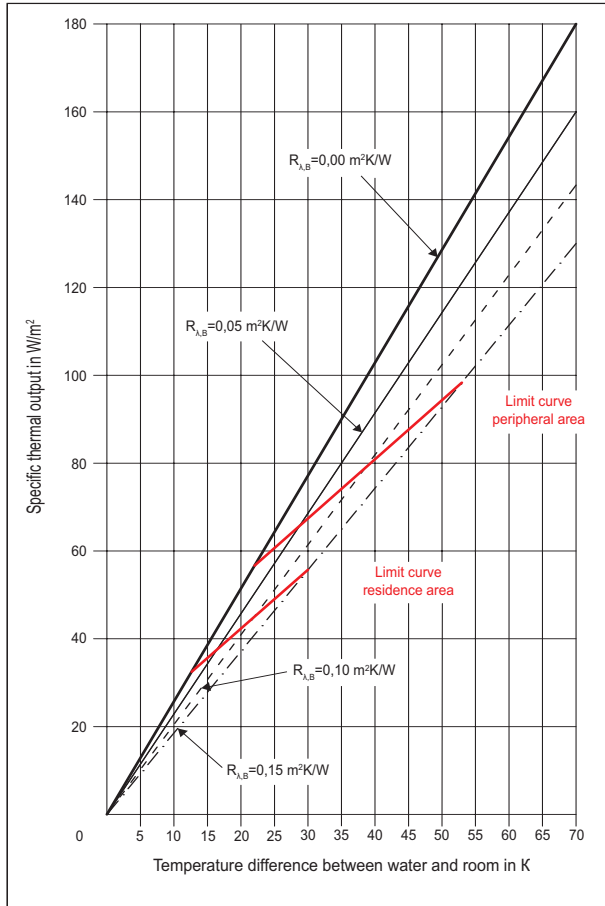


VIDICOMFORT SK 15/600/1200 10/150 RetA

Thickness	15 mm
Length	1200 mm
Width	600 mm
Width of the channels (parallel channels and channels for reversing the direction of the pipe)	10 mm
Distance between channels	150 mm

Diagrams with technical features

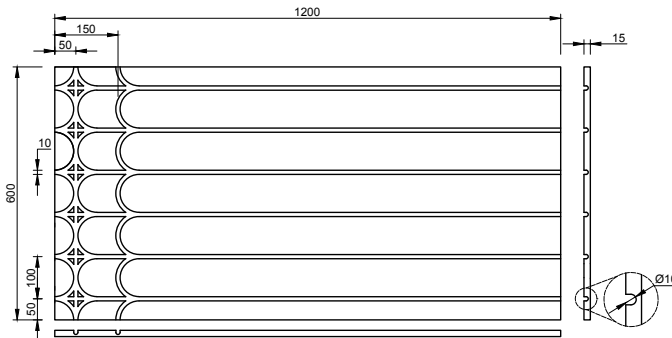
Curve of the heating/cooling load for VidiComfort SK 15/600/1200 10/150



Diagrams with technical features for the various boards are based on tests conducted at the University of Stuttgart to experimentally determine the density of heat flow, or the specific cooling capacity according to EN 1264.

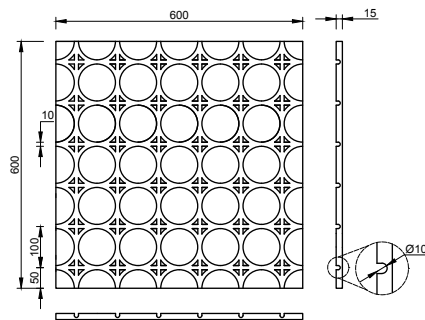
- Surface with $R_{\lambda} = 0,00 \text{ m}^2\text{K/W}$ - tile and stone flooring, linoleum glued up to 3 mm
- Surface with $R_{\lambda} = 0,05 \text{ m}^2\text{K/W}$ - mosaic parquet 8 mm, a tile and stone floors covered with carpet 20%
- Surface with $R_{\lambda} = 0,10 \text{ m}^2\text{K/W}$ - carpet and parquet 15 mm
- Surface with $R_{\lambda} = 0,15 \text{ m}^2\text{K/W}$ - carpet and parquet 22 mm

Floor elements /channels at 100 mm/



VIDICOMFORT SK 15/600/1200 10/100 Ret

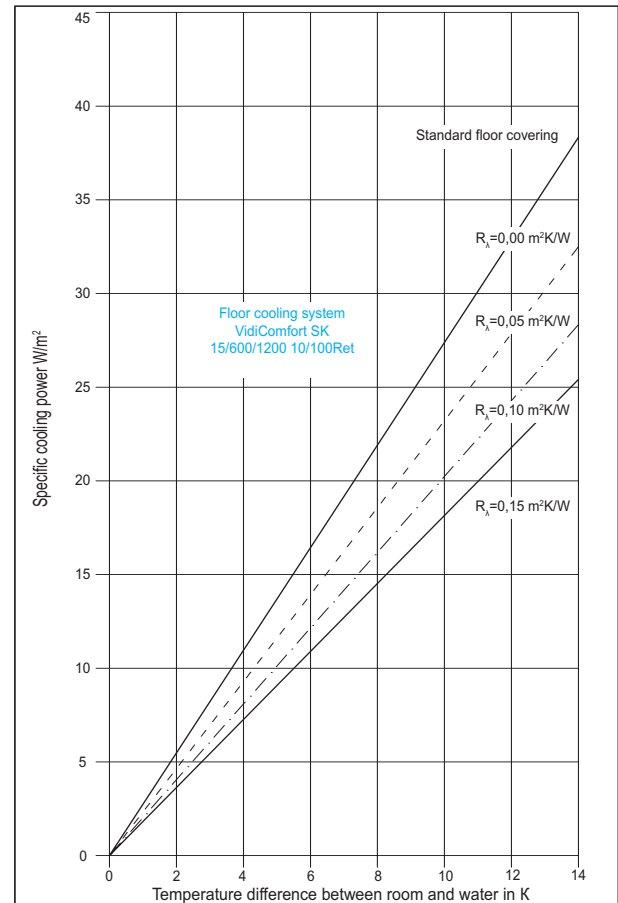
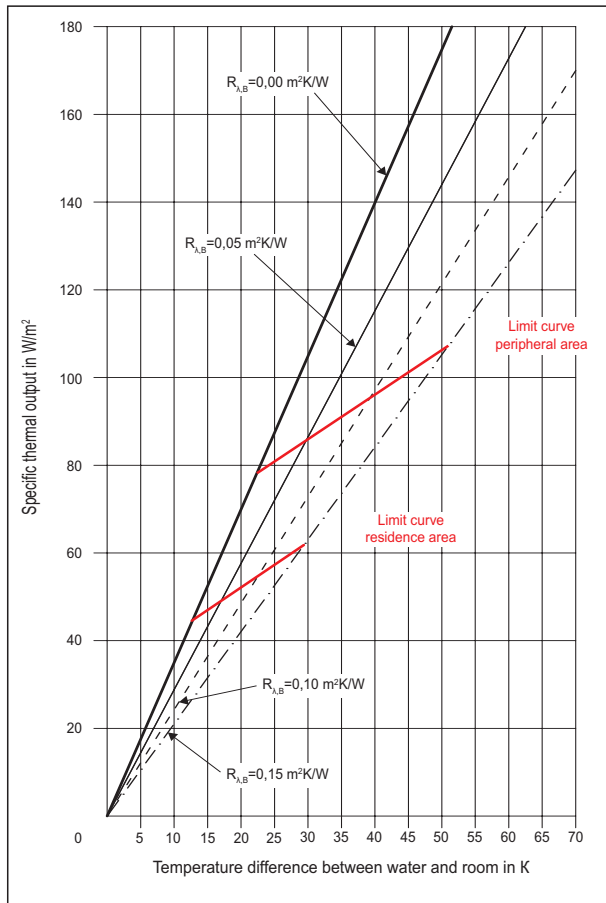
Thickness	15 mm
Length	1200 mm
Width	600 mm
Width of channels (parallel channels and channels for reversing the direction of the pipe)	10 mm
Distance between channels	100 mm



VIDICOMFORT SK 15/600/600 10/100 RetAll

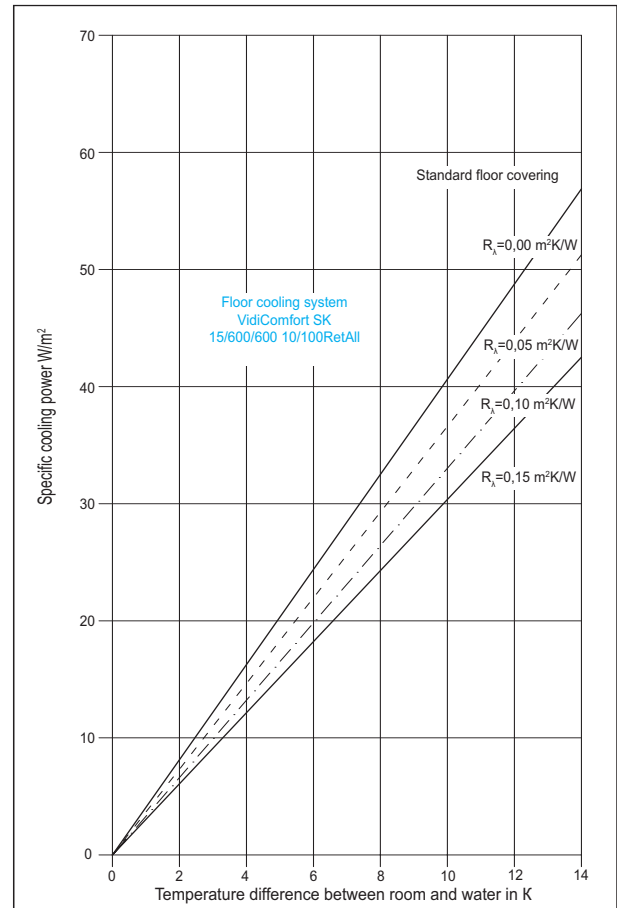
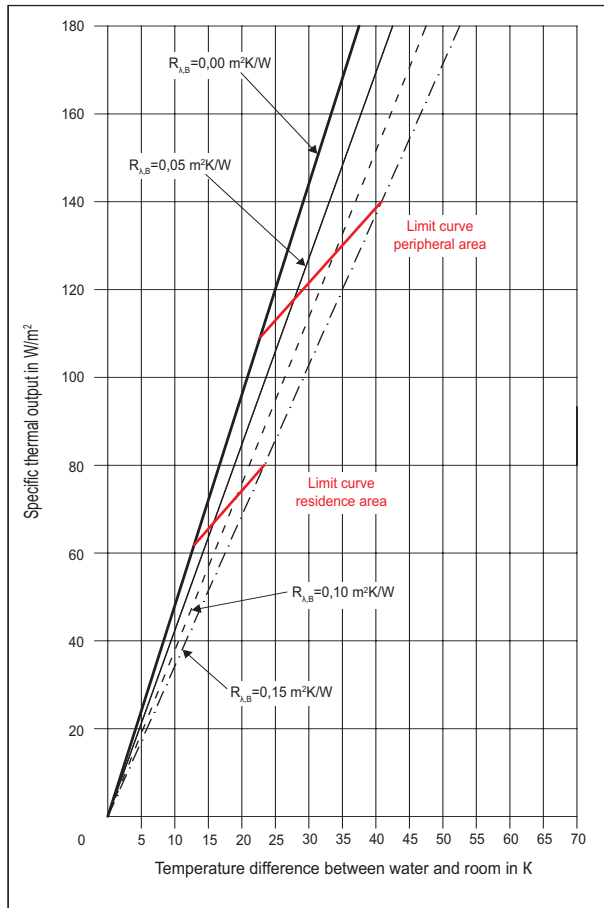
Thickness	15 mm
Length	600 mm
Width	600 mm
Width of channels (parallel channels and channels for reversing the direction of the pipe)	10 mm
Distance between channels	100 mm

Diagrams with technical features

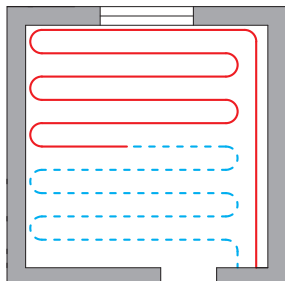


Diagrams with technical features

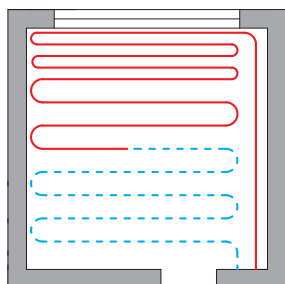
Curve of the heating/cooling load for VidiComfort SK 15/600/600 10/100 RetAll



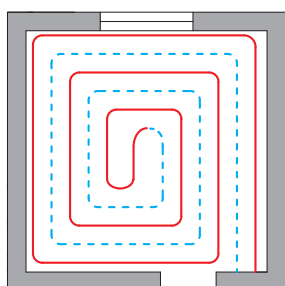
Installation examples



Plain coil without compression zone



Plain coil with compression zone in front of the window



Bifilar installation without compression zone

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