

BAUCHIP AND BAUCHIP+

Structural heating panel

- Rapid, even heat distribution
- Structural board spanning joists or battens
- Dry construction
- Recyclable
- Low risk installation process

PRODUCT DESCRIPTION

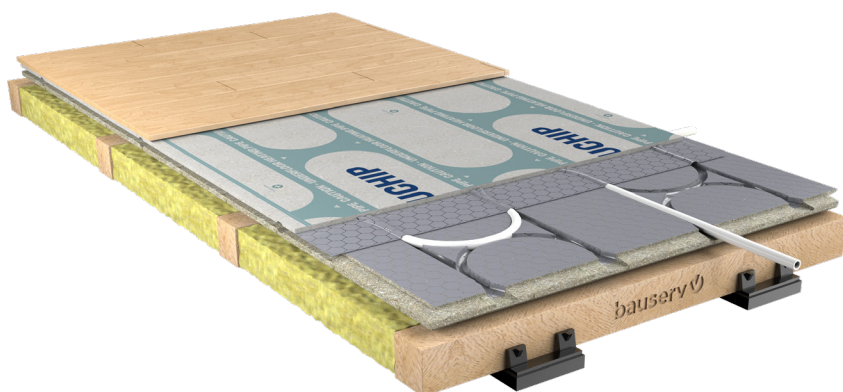
The BauChip system is a structural heat distributing combination panel. This comprises of a pre-routed baseboard and pre-routed, pre-printed top board encasing an AL-HEX layer, to provide a finished floor ready to accept floor coverings, once properly prepared, for ceramic tiles and natural stone, as well as for parquet, multi-layer parquet, laminate and LVT and PVC.

The BauChip and BauChip+ top panels are pre-printed with fixing points and routed for accurate location of the panel over the under-floor pipework. The top panels are available in a range of different materials to suit most flooring requirements.

The BauChip+ (plus) system incorporates an additional layer of AL-HEX bonded to the baseboard to provide increased performance in terms of heating/cooling and operating water temperatures.

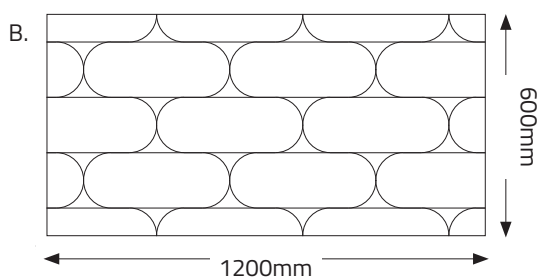
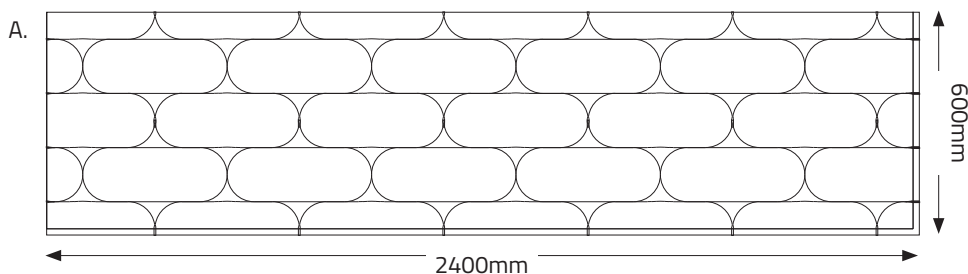
AL-HEX is a patented aluminium self-moulding heat distribution element designed to maximise heating performance.

This system is designed for even heat distribution using low temperature hydronic underfloor heating and cooling systems with timber joists or acoustic battens whilst reducing installation risks and time on site and ensuring consistent performance once installed.



DIMENSIONS

(Not to scale)

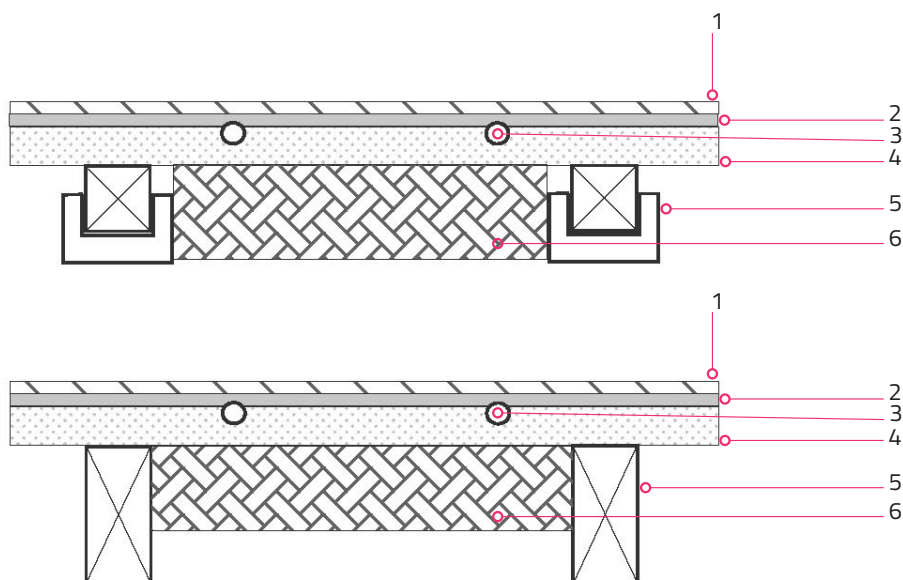
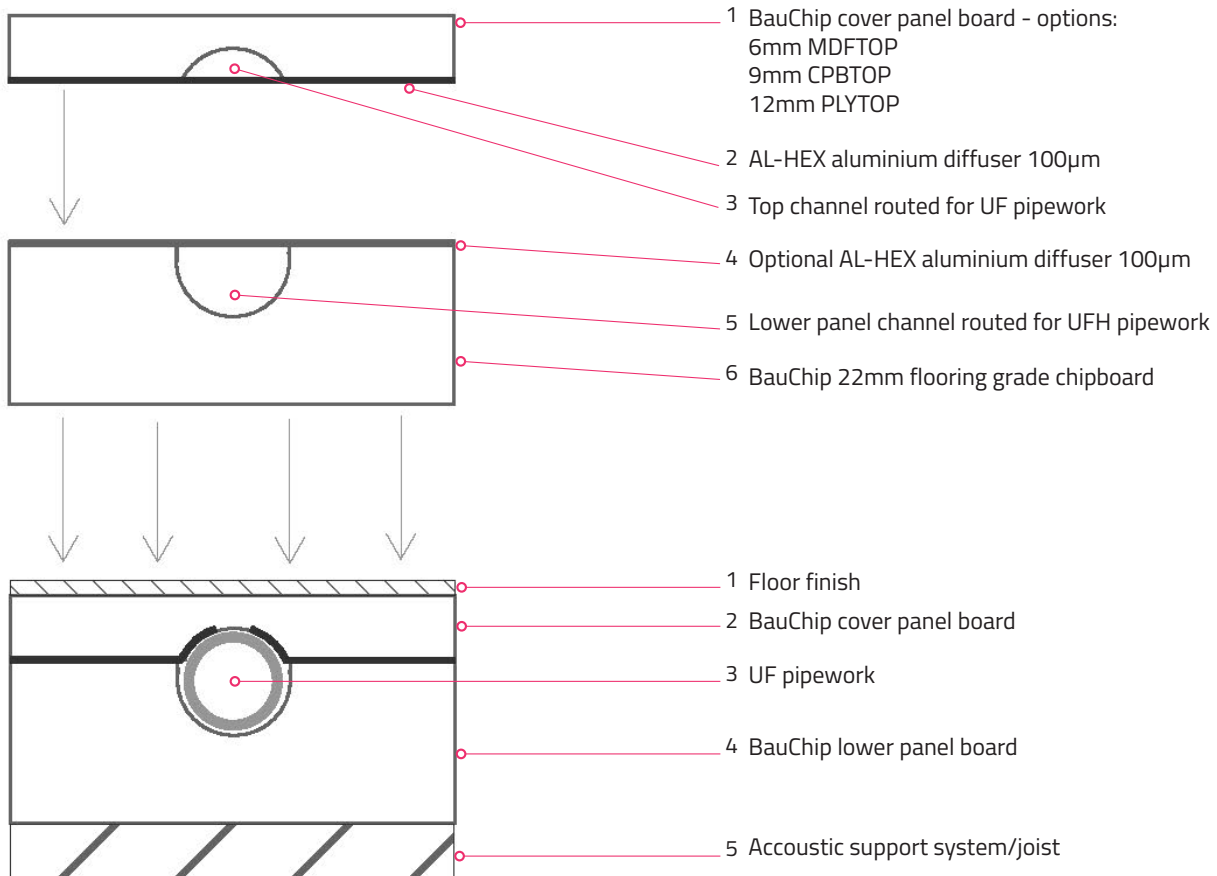


A. Panel = 2400mm x 600mm x 22mm

B. Cover = 1200mm x 600mm x 22mm

BAUCHIP AND BAUCHIP+

Structural heating panel

PRODUCT SECTIONS

- 1 - Floor finish
- 2 - BauChip topboard from 6mm MDF with aluminium diffuser
- 3 - 12mm UF pipework
- 4 - BauChip structural panel (optional aluminium diffuser)
- 5 - Joist or acoustic support system
- 6 - Insulation layer

BAUCHIP AND BAUCHIP+

Structural heating panel

TECHNICAL DATA

CONSTRUCTION TYPE	BS EN 1264-2 Type B
STRUCTURAL PERFORMANCE	<p>BauChip panel fixed over:</p> <ul style="list-style-type: none"> ▪ Acoustic battens over structural floor by others ▪ Standard floor joists by others ▪ Max. joist/batten spacing of 600mm cc <p>BauChip panels are Independently tested for strength compared to a standard 22mm chipboard panel with joists @ 600mm c-c = pass with min. 6mm MDF mechanically fixed to chipboard with 12mm pipe channels at 150m c-c</p>
WEIGHT BEARING LAYER	Routed AL-HEX backed MDFTOP Routed AL-HEX backed CPBTOP Routed AL-HEX backed PLYTOP
WEIGHT BEARING LAYER THICKNESS	MDFTOP = 6mm CPBTOP = 9mm PLYTOP = 12mm
WEIGHT BEARING LAYER CONDUCTIVITY	MDFTOP = 0.13 W/mK CPBTOP = 0.23 W/mK PLYTOP = 0.13 W/mK
WEIGHT BEARING LAYER FIXING	Screwed through pre-marked fixing points using flooring screws
WEIGHT BEARING LAYER DIMENSION	1200mm x 600mm
THERMAL DIFFUSION LAYER	AL-HEX – patented aluminium self-moulding contact system
THERMAL DIFFUSION LAYER THICKNESS	BauChip: 100 µm BauChip+: 200 µm
THERMAL DIFFUSION LAYER CONDUCTIVITY	200 W/mK
THERMAL INSULATION TYPE	By others
THERMAL INSULATION CONDUCTIVITY	By others
THERMAL INSULATION GRADE	By others
ACOUSTIC LAYER	By others
STRUCTURAL BASEBOARD LAYER	P5 moisture resistant chipboard
STRUCTURAL BASEBOARD CONDUCTIVITY	0.13 W/mK
STRUCTURAL BASEBOARD THICKNESS	22mm
PIPE FIXING METHOD	Grooved channels for 12mm pipework
STRUCTURAL BASEBOARD FIXING	Mechanically fixed to support structure
STRUCTURAL BASEBOARD PANEL DIMENSION	Baseboard: 2400x600
TOLERANCES CUT	+/- 1.0 mm thickness +/- 0.3mm
FINISHED PANEL THICKNESS	Typically 28mm depending on top board
SYSTEM WEIGHT	Approx. >20.04 kg/m ² depending on top board
OZONE DEPLETION POTENTIAL (ODP)	-
RECYCLABLE	Baseboard – Yes Topboard – Yes

BAUCHIP AND BAUCHIP+

Structural heating panel

HEATING PERFORMANCE DRT = 21°C, 1.0 Tog covering per BS1264-3

BauChip

Top Panel	Pipe size	Pipe spacing	Heat output* W/m ² @ 60/50 1.0 tog	Heat output* W/m ² @ 55/45 1.0 tog	Heat output* W/m ² @ 45/38 1.0 tog	Heat output* W/m ² @ 35/29 1.0 tog
MDFTOP	12 x 1.4	150	88	75	53	28
CPBTOP	12 x 1.4	150	90	77	54	29
PLYTOP	12 x 1.4	150	73	63	44	21

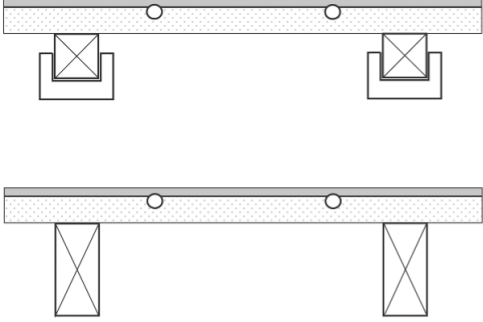
BauChip+

Top Panel	Pipe size	Pipe spacing	Heat output* W/m ² @ 60/50 1.0 tog	Heat output* W/m ² @ 55/45 1.0 tog	Heat output* W/m ² @ 45/38 1.0 tog	Heat output* W/m ² @ 35/29 1.0 tog
MDFTOP	12 X 1.4	150	101	86	61	32
CPBTOP	12 x 1.4	150	103	88	62	33
PLYTOP	12 x 1.4	150	84	72	51	27

* Heat Outputs:

1. are indicative for comparison purposes
2. are based on design room temperature of 21°C
3. are based on effective heated area
4. will vary on foiled area around pipe bends
5. will increase/decrease depending on the floor covering and weight bearing layer used
6. will vary on final floor construction installed.

STRUCTURAL TEST STATEMENT OF PERFORMANCE

Test	STRUCTURAL
Testing Facility	This independent testing was carried out by an UKAS accredited, external consultancy lab.
Product	BauChip
Construction	22mm P5 BauChip deck (base) panel with 6mm aluminium lined BauChip top panel screwed down.
Indicative Section	
Statement	This is to confirm that Bauserv BauChip structure with specific Bauserv BauChip pattern as described above, assembled as per the Bauserv installation guide, laid over joists or battens at 400mm centres, has been tested in accordance with the British Standards BS EN 1195:1998 and BS EN 12871:2010, assessed against the requirements of Class I of BS EN 12871 Table 4, and has passed.
Results	Point Load results yielded a preliminary $F_{max,est}$ of 7.02 kN.

The information on this datasheet is based on extensive experience, is intended to convey the best of our knowledge, is not legally binding and does neither constitute a contractual legal relationship nor a subsidiary obligation resulting from the bill of sale. The quality of our materials is guaranteed within the framework of our general terms and conditions. Our products may be used by professionals and/or experienced and accordingly technically skilled persons only. Users are not released from inquiring in case of uncertainties or from rendering professional workmanship. We recommend using a test surface first or a small area for initial, small-scale testing. Naturally, it is not possible to describe or foresee all possible current and future uses and peculiarities. Information that is assumed to be familiar to experts has been omitted. Please observe the current, technical, national and European standards, guidelines and data sheets regarding materials, substrates and the subsequent construction. Please contact us if you have any reservations or doubt. This version is rendered invalid if a new version is released. The most recent data sheets, safety data sheets and the terms and conditions are available from Bauserv Limited.