# **BAUHEX: FOIL FACED INSULATION OVERLAY**

Structural heating panel

# **PRODUCT DESCRIPTION**

The BAUFOIL panel system forms part of our comprehensive range of underfloor heating panel systems. This low-profile, low weight, adhesive system is ideal for retro-fit, acoustic and new build installation, particularly where floor build-up height and weight is at a premium.

The panel insulation is pre-grooved using high quality engineering tools, a foil layer reflective layer is then heat-adhered to produce an effective, high output underfloor heating panel solution. This can be used with our universal MULITOP product to give a high heat output floor finish with in-built decoupling layer ready to accept carpet, wood or tiles directly or even vinyl with additional preparation work using the RS-FLEX levelling compound in line with the vinyl manufacturers requirements.



# DIMENSIONS

(Not to scale)









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# **PRODUCT SECTIONS**



- Soft temper aluminium diffuser 100 µm
- Routed channel for UF pipework
- Flooring grader XPS insualtion



- Floor finish
- Weight bearing layer to accept floor covering
- Routed channel for UF pipework
- BauHEX Insulation Panel
- Structural/accoustic support system



- Floor flnish
- Weight bearing layer
- Underfloor pipework
- BauHEX Insulation Panel
- Accoustic layer (where appropriate)
- Structural support layer (structural slab)

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- Floor flnish
- Weight bearing layer
- Underfloor pipework
- BauHEXww Insulation Panel
- Accoustic layer (where appropriate)
- Structural support layer (chipboard over joist subfloor)

# Floor flnish

- Weight bearing layer
- Underfloor pipework
- **BauHEX Insulation Panel**
- Accoustic layer (where appropriate)
- Structural support layer (chipboard over acoustic batten subfloor)

# Floor flnish

- Weight bearing layer
- Underfloor pipework
- BauHEX Insulation Panel
- Accoustic layer (where appropriate)
- Structural support layer (insulation hanger over joist)

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# **TECHNICAL DATA**

| CONSTRUCTION TYPE                    | BS1264 Туре В   |
|--------------------------------------|---|
| WEIGHT BEARING LAYER                 | Bauserv MultiTOP, floorboard(by others) or BAUTHERM screed  |
| WEIGHT BEARING LAYER THICKNESS       | MultiTOP: 0.16 W/mK<br>CPBTOP: 0.39 W/mk<br>Screed replacement panel: 0.38 W/mk<br>Chipboard: 0.14 W/mK<br>Screed: 1.4 – 2.3 W/mK   |
| WEIGHT BEARING LAYER CONDUCTIVITY    | 4mm MultiTOP; 9-15mm CPBTOP; 18mm board; 30mm BAU-<br>THERM screed  |
| PIPE FIXING METHOD                   | Grooved channels for 12, 16, 16.5 pipework  |
| THERMAL DIFFUSION LAYER THICKNESS    | 200 µm AL HEX on surface  |
| THERMAL DIFFUSION LAYER CONDUCTIVITY | 200 W/mK  |
| THERMAL INSULATION TYPE              | ХРЅ   |
| THERMAL INSULATION CONDUCTIVITY      | 0.033 W/mK  |
| THERMAL INSULATION GRADE             | 200 kPA for 25; 30 and 50mm<br>300 kPa for 18 ad 20mm   |
| ACOUSTIC LAYER                       | Optional  |
| INSULATION PANEL FIXING              | <ul> <li>18; 20; 25mm Factory Applied Adhesive Layer to Insulation Panel reinforced with screws depending on structural support where appropriate</li> <li>20; 25; 30; 50mm available without Adhesive when used with floorboards &gt;15mm</li> </ul> |
| STRUCTURAL SUPPORT SYSTEM            | Structural floorboards over support system by others<br>Structural timber boards over floor joists by others<br>Structural concrete (slab or beam) by others  |
| PANEL DIMENSION                      | 1200 x 600mm  |
| PANEL AVAILABLE THICKNESS            | 18, 20, 25, 30, 50mm  |
| SYSTEM WEIGHT                        | From 2.0 kg/m2 with water, depending on weight bearing layer  |
| RECYCLABLE                           | Yes   |
|                                      |   |

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#### HEATING PERFORMANCE DRT = 20°C, 1.0 Tog covering per BS1264-3 BauHEX using 4mm 0.16 W/mK MULTITOP

| Pipe size | Pipe<br>spacing | Heat<br>output*<br>W/m² @<br>60/50<br>1.0 tog | Heat<br>output*<br>W/m² @<br>55/45<br>1.0 tog | Heat<br>output*<br>W/m² @<br>45/38<br>1.0 tog | Heat<br>output*<br>W/m² @<br>35/29<br>1.0 tog |
|-----------|-----------------|---|---|---|---|
| 16 x 2    | 150             | 104   | 89  | 63  | 34  |
| 16 x 2    | 200             | 94  | 80  | 57  | 30  |

#### BauHEX using 18mm 0.39W/mK CPBTOP

| Pipe size | Pipe<br>spacing | Heat<br>output*<br>W/m² @<br>60/50<br>1.0 tog | Heat<br>output*<br>W/m² @<br>55/45<br>1.0 tog | Heat<br>output*<br>W/m² @<br>45/38<br>1.0 tog | Heat<br>output*<br>W/m <sup>2</sup> @<br>35/29<br>1.0 tog |
|-----------|-----------------|---|---|---|---|
| 16 x 2    | 150             | 98  | 84  | 59  | 32  |
| 16 x 2    | 200             | 88  | 75  | 53  | 29  |

# BauHEX using 18mm 0.38 W/mK GYPSUM FIBRE anel

| Pipe size | Pipe<br>spacing | Heat<br>output*<br>W/m <sup>2</sup> (2)<br>60/50<br>1.0 tog | Heat<br>output*<br>W/m <sup>2</sup> @<br>55/45<br>1.0 tog | Heat<br>output*<br>W/m <sup>2</sup> @<br>45/38<br>1.0 tog | Heat<br>output*<br>W/m² @<br>35/29<br>1.0 tog |
|-----------|-----------------|---|---|---|---|
| 16 x 2    | 150             | 94  | 80  | 57  | 30  |
| 16 x 2    | 200             | 85  | 73  | 51  | 28  |

# BauHEX using 18mm 0.13 W/mK chipboard panel

| Pipe size | Pipe<br>spacing | Heat<br>output*<br>W/m² @<br>60/50<br>1.0 tog | Heat<br>output*<br>W/m² @<br>55/45<br>1.0 tog | Heat<br>output*<br>W/m² @<br>45/38<br>1.0 tog | Heat<br>output*<br>W/m² @<br>35/29<br>1.0 tog |
|-----------|-----------------|---|---|---|---|
| 16 x 2    | 150             | 70  | 60  | 42  | 23  |
| 16 x 2    | 200             | 63  | 54  | 38  | 20  |

# BauHEX using 30mm 2.3 W/mK BAUTHERM Screed

| Pipe size | Pipe<br>spacing | Heat<br>output*<br>W/m² @<br>60/50<br>1.0 tog | Heat<br>output*<br>W/m² @<br>55/45<br>1.0 tog | Heat<br>output*<br>W/m² @<br>45/38<br>1.0 tog | Heat<br>output*<br>W/m² @<br>35/29<br>1.0 tog |
|-----------|-----------------|---|---|---|---|
| 16 x 2    | 150             | 111   | 95  | 67  | 36  |
| 16 x 2    | 200             | 101   | 86  | 61  | 33  |

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- 1. Based on effective heated foil area.
- 2. Based on design room temperature of 21°C.
- 3. Shown using a 1.0 TOG default floor covering per BS1264-3.
- 4. Will increase/decrease depending on the floor covering used.
- 5. Will vary on final floor construction installed.

