Technical Information - EAL
Product Description

Composition
EnergoAqua Line, EAL, consists of three parts, the reflective plate, water carrying pipes and insulation. CE marked and manufactured in accordance with EN 14037.

The panel comprises of a 0.6 mm aluminium plate which is cold pressed into optimal shape, the insulation consists of 28 mm thick polyurethane foam. The pipes are made of copper in diameter Ø 12 mm. Maximum working pressure 6 Bar.

Design and Function
The surface plate encapsulates the copper pipes maximising the contact surface leading to a highly efficient radiant panel.

The warm water which circulates through the pipes conducts heat to the surface plate, warming the underside of the panel. The increased temperature of the panel enables radiant heat being emitted to cooler surfaces in the room.

Facts and Specifications
Length: EAL can be made to any length in 100 mm increments from 1000 mm up to 6000 mm per panel.
Width: 400 mm, 800 mm or 1200 mm.
Height: 30 mm.
Number of pipes: EAL-2 - 2 pcs, copper.
EAL-4 - 4 pcs, copper.
EAL-6 - 6 pcs, copper.
Connection water: Horizontal alt. vertical connection.
Link water circuit: The panels are provided with several different link types; more information on page 4.
Suspension: Mainly free hanging from the ceiling, but also suitable for surface mounting.
Finish, colour: NCS0502Y / RAL9010 (White).

Weight
Weight per meter panel, excluding water:
EAL-2 2.6 kg
EAL-4 5.2 kg
EAL-6 7.8 kg

Weight per meter panel, including water:
EAL-2 3.5 kg
EAL-4 7.2 kg
EAL-6 10.8 kg

Construction

Inter-Connection

Dimensions
Technical Information

**Designations**

<table>
<thead>
<tr>
<th></th>
<th>Pv: Thermal emission (W)</th>
<th>qv: Water flow (l/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δtmv: Difference between the mean water temperature and the room temperature (°C)</td>
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<tr>
<td>tr: Room temperature (°C)</td>
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<tr>
<td>Δtv: Temperature difference of water (°C)</td>
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</table>

**Thermal Emission**

The heat output, W/m, as result of the difference between the average temperature of the fluid, Δtmv, and the ambient temperature, tr.

<table>
<thead>
<tr>
<th>Type</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
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</thead>
<tbody>
<tr>
<td>EAL-2</td>
<td>76</td>
<td>113</td>
<td>153</td>
<td>193</td>
<td>234</td>
<td>274</td>
</tr>
<tr>
<td>EAL-4</td>
<td>152</td>
<td>225</td>
<td>304</td>
<td>384</td>
<td>464</td>
<td>544</td>
</tr>
<tr>
<td>EAL-6</td>
<td>228</td>
<td>336</td>
<td>456</td>
<td>576</td>
<td>697</td>
<td>817</td>
</tr>
</tbody>
</table>

**Pressure Drop per Circuit**

**Water Flow**

Water flow as result of thermal emission, Pv, and temperature difference of water, Δtv. The water flow should not be lower than recommended to secure turbulent flow in pipes.

Recommended minimum water flow: 0.02 l/s
EAL: Water supplied radiant panel for heating or cooling.

Length: EAL can be made to any length in 100 mm increments from 1000 mm up to 6000 mm per panel. Several panels can be inter-connected to a maximum length of 25 m.

Width: 400 mm, 800 mm or 1200 mm.

Height: 30 mm.

Colour: NCS0502Y / RAL9010 (White).

Connection Water
No headers are used. Connection is made directly on smooth straight pipe ends. The following dimensions are applied:

- EAL-2-P 12 mm
- EAL-2-D 15 mm
- EAL-4-S 12 mm
- EAL-4-P / D 15 mm
- EAL-6-P / S 15 mm
- EAL-6-D 22 mm

Jointing: Apply press fitting Ø 12 mm when interconnecting the panels. We recommend using products and equipment from the leading brands on the market, for the best result.

Special Modes

- Colour: Optional colour can be delivered upon request.
- Link types: When other link types are needed, state EAL – number of pipes – X, and specify how the panel should be linked.

Accessories

- Suspension kit: For other suspend distance than 1000 mm. State G3SEAL + desired distance.
- Suspension kit: Used for surface mounting, 4 attachment points per 3000 mm length. Screw 6.5 x 100 mm and spacer are included
- Joint covers: We carry an amount of different joint covers. Ask us about suitable solutions.

Suspension

A suspension kit (containing ceiling bracket, rod hanger with spring clip, loop screw and quadrilateral nut) is supplied with the panels by every delivery. The suspend distance ceiling/panel (rod hanger) is adjustable 500 mm to 1000 mm.

Panels longer than 2500 mm is supplied with a number of 6 units per panel. The c/c between suspension points is maximum 3000 mm.

Attachment point in/on ceiling must not be less than 20 kg. Attachment screw is not included.