
**Advantages**
- Factory-made water-resistant glued wooden strips (glue-lams) for easy installation onto the supporting structure
- Single-panel roof structure with optimum thermal insulation in winter and summer
- No special tools required
- Plenty of room for architectural creativity
- Low structural depth saves tremendously on cost
- Easily meets the requirements of the ZVSHK (German Central Association for Sanitation, Heating and Air Conditioning)
- Excellent handling due to optimum width/length ratio
- Easy installation, no mounting aids necessary
- Harmless from a biological and building ecology point of view, non-rotting, recyclable, mould- and mildew-resistant (PUR/PIR)

A U-value of 0.20* can be achieved with a thickness of just 120 mm

**The metal roof insulation element in a convenient, narrow format is particularly suitable for the cost-efficient equipping of non-ventilated single-panel metal roof or facade constructions.**

**puren metal roof insulation element ThCG 024 - diffusion-sealed design**

Steep roof insulation element made of high-performance PUR/PIR-rigid foam insulating material, CFC- and HCFC-free, application type PUR 024 DAD with aluminium outer layer on both sides (50 µm) for a full-surface insulation above rafters with no thermal bridging, topside with two 90 mm wide factory-made multi-layer wood strip inlays for attaching the elements onto the supporting structure as well as for fastening flashing and fasteners.

**Format**
- 2400 x 620 mm external dimensions
- 2380 x 600 mm fitting dimensions

**Edges**
- Front end: tongue + groove joint
- Long side: stepped profile

* * Thermal transfer resistances $R_u$ and $R_{se}$ and a 19 mm wood panelling are taken into account.
### Technical Data puren® Metal roof insulation element

#### puren metal roof insulation element ThCG (WLS) 024 - diffusion sealed principle

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUR/PIR rigid foam</strong></td>
<td>CFC- and HCFC-free, third-party control by FIW Munich</td>
</tr>
<tr>
<td><strong>Properties:</strong></td>
<td></td>
</tr>
<tr>
<td>Apparent density:</td>
<td>&gt; 30 kg/m³ in accordance with DIN EN 1602</td>
</tr>
<tr>
<td>Thermal conductivity grade:</td>
<td>( \lambda = 0.024 \text{ W/(m·K)} ) in accordance with DIN 4108-4</td>
</tr>
<tr>
<td>Coefficient of vapour diffusion resistance:</td>
<td>40 - 200 (PUR/PIR rigid foam)</td>
</tr>
<tr>
<td>Application type:</td>
<td>DAD in accordance with DIN 4108-10</td>
</tr>
<tr>
<td>Reaction to fire:</td>
<td>B2 in accordance with DIN 4102</td>
</tr>
<tr>
<td>Fire resistance class:</td>
<td>REI 30 with wood panelling 19 mm</td>
</tr>
<tr>
<td>Temperature resistance:</td>
<td>up to +90°C, short term up to +250°C</td>
</tr>
<tr>
<td>Covering layer:</td>
<td>coated on both sides with aluminium (50 µm), slip resistant and anti-glare surface with two factory made inlaid 90 mm wide multi-layer wood strip inlays</td>
</tr>
<tr>
<td>Edge:</td>
<td>tongue+groove joint at the front end, longitudinal stepped profile</td>
</tr>
<tr>
<td>External dimensions:</td>
<td>2400 x 620 mm</td>
</tr>
<tr>
<td>Internal dimensions:</td>
<td>2380 x 600 mm</td>
</tr>
<tr>
<td>Available thicknesses, mm:</td>
<td>60  80  100  120  140  160  180*</td>
</tr>
<tr>
<td>*U-Value W/(m²·K)</td>
<td>0.42  0.30  0.24  0.20  0.17  0.15  0.xx</td>
</tr>
<tr>
<td>Pakage content (per pallet), m²</td>
<td>11.44  8.58  7.15  5.72  4.29  4.29  x.yy</td>
</tr>
</tbody>
</table>

#### Recommended accessories

- **puren BIT** special screws
- **puren roofing felt** TOP DSB 100 as separation layer on the wood panelling
- **puren vapour barrier DS-AL** \( s_p = 1500 \text{ m, with aluminium lining, 25 m x 1000 mm} \)
- **puren Akos** sound-insulation material for damping, 100 running m x 600 mm (also available in widths of 150 mm and 300 mm)

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*Thermal transfer resistances \( R_s \) and \( R_m \) are considered. Other project-specific features, such as those in accordance with DIN EN ISO 6946, are not taken into account.*

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