EVALASTIC®
Roofing and Waterproofing Membranes
**EVALASTIC® Project International (sample)**

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searle Pharmaceutical International</td>
<td>Newcastle, England</td>
<td>3,000 m²</td>
</tr>
<tr>
<td>Samworth Academy</td>
<td>Leicester, England</td>
<td>4,000 m²</td>
</tr>
<tr>
<td>Grand Opera House</td>
<td>Belfast, Northern Ireland</td>
<td>1,000 m²</td>
</tr>
<tr>
<td>Cockenzie Primary School</td>
<td>Scotland</td>
<td>1,000 m²</td>
</tr>
<tr>
<td>Peckham Academy</td>
<td>London, England</td>
<td>4,000 m²</td>
</tr>
<tr>
<td>DaimlerChrysler AG, Logistics Centre</td>
<td>Reutlingen, Germany</td>
<td>30,000 m²</td>
</tr>
<tr>
<td>Thomas Philippus GmbH, Logistics Centre</td>
<td>Melle-Westerhausen, Germany</td>
<td>50,000 m²</td>
</tr>
<tr>
<td>Kober AL-KO GmbH</td>
<td>Kötz, Germany</td>
<td>38,200 m²</td>
</tr>
<tr>
<td>DaimlerChrysler AG</td>
<td>Wörth, Germany</td>
<td>33,000 m²</td>
</tr>
<tr>
<td>Expo 2000 Pavilion</td>
<td>Hanover, Germany</td>
<td>25,000 m²</td>
</tr>
<tr>
<td>Volkswagen AG, Pressing Plant</td>
<td>Emden, Germany</td>
<td>26,000 m²</td>
</tr>
<tr>
<td>Orafol, Kiebettechnik GmbH</td>
<td>Oranienburg, Germany</td>
<td>10,000 m²</td>
</tr>
<tr>
<td>VDO Schindling AG</td>
<td>Babenhausen, Germany</td>
<td>12,000 m²</td>
</tr>
<tr>
<td>European University</td>
<td>Bressanone, Italy</td>
<td>10,000 m²</td>
</tr>
<tr>
<td>Electricity Production Unit ENEL</td>
<td>Milano-Turbigo, Italy</td>
<td>4,500 m²</td>
</tr>
<tr>
<td>Euroforum, Offices and Hotel Building</td>
<td>Luxemburg</td>
<td>7,000 m²</td>
</tr>
<tr>
<td>TARKETT-Sommer Factory Wiltz</td>
<td>Luxemburg</td>
<td>11,000 m²</td>
</tr>
<tr>
<td>SOLUTIA</td>
<td>Louvain la Neuve, Belgium</td>
<td>10,000 m²</td>
</tr>
<tr>
<td>TROPICANA (Pepsi-Cola)</td>
<td>Zeebrugge, Belgium</td>
<td>4,200 m²</td>
</tr>
<tr>
<td>Searle Continental Pharma</td>
<td>Louvain la neuve, Belgium</td>
<td>3,600 m²</td>
</tr>
<tr>
<td>ESSENT</td>
<td>Maasbracht, Holland</td>
<td>4,000 m²</td>
</tr>
<tr>
<td>Komdragmet, Administration and Sales Center</td>
<td>Jakutsk, Russia</td>
<td>4,300 m²</td>
</tr>
<tr>
<td>JM AB Företagshuset</td>
<td>Gustavsberg, Sweden</td>
<td>3,800 m²</td>
</tr>
</tbody>
</table>
alwitra EVALASTIC® is part of the proven alwitra product system.

This system also comprises:

- roofing and waterproofing membranes (synthetic and elastomeric membranes)
- roof edge trims
- wall cappings
- wall flashing profiles
- synthetic coatings
- coated steel sheets
- rooflights (smoke venting systems)
- rainwater outlets
- flat roof vents
- paving slab supports
EVALASTIC® roofing and waterproofing membranes

The sophisticated EPDM alternative with CE marking

Limited availability of natural resources requires the building industry to rethink the selection and use of materials. Innovative product development, as with EVALASTIC® roofing and waterproofing membranes, has proven that advanced building materials can offer both ecologically and economically sound solutions.

Top quality - ensured by national and international testing as well as in-house and external control

- Staatliche Materialprüfungsanstalt (MPA), Darmstadt, Germany
- TÜV Rheinland Group, Cologne, Germany
- Forschungs- und Materialprüfungsanstalt (FMPA) Baden-Württemberg, Stuttgart, Germany
- Gesellschaft für Materialforschung und Prüfanstalt für das Bauwesen (MPFA), Leipzig, Germany
- Materialprüfungsamt Nordrhein-Westfalen (MPA NRW), Dortmund, Germany
- Warringtonfiregent NV, Testing Institute, Ghent University, Ghent, Belgium
- Forschungsanstalt, Fachgebiet Landschaftsbau, Geisenheim, Germany
- Union Belge pour l’agrément technique dans la construction (UBAtc), Brussels, Belgium
- IKOB-BKB BV, Houten, Netherlands

• Tests with General Building Construction Supervision Test Certificate (AbP) according to DIN 4102-7 (Resistance to flying sparks and radiant heat) as well as DIN EN V1187-1 (external fire load) with classification according to DIN EN ISO 13501-5 (class E)
• Tests according to DIN 4102-2 (building material class B2) and DIN EN ISO 11925-2 with classification according to DIN EN 13501-1
• Testing according to FLL 99 (root/rhizome penetration resistance)
• ATG approval according to UEAtc Technical Guide for waterproofing systems made of EPDM
• KOMO attest-met-productcertificaat according to BRL 1511 deel 1
### Product range

<table>
<thead>
<tr>
<th>EVALASTIC® roofing and waterproofing membranes</th>
<th>EVALASTIC® V roofing and waterproofing membranes</th>
</tr>
</thead>
<tbody>
<tr>
<td>homogeneous waterproofing membrane, without backing</td>
<td>homogeneous waterproofing membrane, with polyester fleece backing</td>
</tr>
</tbody>
</table>

- **Thickness excluding backing (mm)**
  - 1.2/1.5
  - 1.2/1.5

- **Membrane widths (m)**
  - 1.05/1.55
  - 1.05/1.09/1.55

- **Cut widths (cm)**
  - 10/16/20/25/33/50/66/75
  - 54/79

- **Standard lengths (m)**
  - 25
  - 25

- **Specified lengths**
  - on request
  - on request

- **Standard colour**
  - light grey
  - light grey

- **Special colours**
  - on request
  - on request

- **EVALASTIC® preformed details**
  - Internal corners
  - External corners
  - Flashing collar
  - Round disc

- **EVALASTIC®-SKA flashing membrane**
  - with self-adhesive coating on underside
  - Length (m)
  - Widths (m)
    - 25
    - 75¹, 42/33
    - 25
    - 75¹, 42/33

- **EVALASTIC® coated steel sheet, light grey**
  - Nominal thickness (mm)
  - Length / width (m)
    - 1.2
    - 2.00 / 1.00
    - 1.2
    - 2.00 / 1.00

- **Adhesives**
  - alwitra-PUR D
  - alwitra-L 40

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**EVALASTIC® V roofing and waterproofing membranes**

- with excellent characteristics,
  - are perfectly suitable for mechanical fastening
  - are ideal for application with alwitra adhesives
  - come with an integrated cushioning layer (polyester fleece backing)
  - ideal for refurbishment

### Bonded roof build-up

- EVALASTIC® V roofing membrane
- Faced thermal insulation
- Vapour control layer

### Mechanically fastened roof build-up

- EVALASTIC® V roofing membrane
- Thermal insulation
- Vapour control layer

### Unbacked EVALASTIC® roofing and waterproofing membranes

- provide an economic solution for loose laying with ballast
  - Combined waterproofing and root penetration protection for green roofs
  - Efficient application and welding
  - Reliable flashing technique

### Green roof build-up

- Vegetation/substrate/filter/drainage layer
- Protection layer
- EVALASTIC® roofing membrane
- Thermal insulation
- Vapour control layer

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¹ with double selvedge ² e. g. black ³ for alwitra flat roof outlets and vents ⁴ for covering fastening elements outside the seam area
The EVALASTIC® seam joint

Our contribution for a good climate on the building site.

Roofers enjoy using EVALASTIC®. Hardly surprising, as the simple EVALASTIC® jointing procedure means installation is just as quick and efficient as with most other synthetic single ply membranes.

The inherent properties of this thermoplastic elastomer ensure full and homogeneous welding capability, not only in the seam area, but over the whole membrane.

With standard hot-air welding machines, the welding of seams is both simple and effective.

Even homogeneous and reliable waterproofing of complex flashing details is achieved on site. Roof penetrations, corners and complicated flashing details can be produced on site – fast and precisely without the need for preformed parts. For this purpose, EVALASTIC® flashing membranes are simply shaped and homogeneously welded using hot air.

EVALASTIC® roofing membranes can be professionally connected to all built-in details of the alwitra roofing system, e.g. rainwater outlets, rooflights or roof vents. alwitra’s universally proven and accepted system profiles are equally suitable when aesthetically pleasing roof perimeters are required. Special EVALASTIC® coated steel sheets, EVALASTIC®-SKA selfadhesive flashing membranes, preformed corners and adhesives complete the system.

A complete system from one source: the alwitra roofing system comprises perfectly matching roofing components.
Environmental Awareness starts at the Top

EVALASTIC® roofing and waterproofing membranes are high-quality EPDM membranes according to DIN 18531-2 and DIN 18195-2 for single-ply roofing of all kinds of flat roof construction and application methods including the waterproofing of foundations. Product and system audits are carried out according to the requirements of the European standards DIN EN 13956 and DIN EN 13967 and provide the basis for the entitlement to CE marking.

Increasingly, ecologically-conscious building owners and architects are unwilling to compromise when specifying for new build and refurbishment works. They demand a superior waterproofing that also represents state-of-the-art technology of synthetic and rubber materials from an ecological point of view.

alwitra offers such an environmentally friendly roof waterproofing: EVALASTIC®. EVALASTIC® is an outstanding roofing membrane with a record of practical experience of more than 20 years. The EPDM base polymer of EVALASTIC® has proven its suitability for building and construction purposes over decades, providing high resistance to chemicals, ideal low temperature flexibility and outstanding weathering resistance. The thermoplastic elastomers in the material guarantee this excellent longterm performance even under severe weather conditions. In addition to ecological production and long-term reliability, the ease of installation is another major benefit of this environmentally friendly alternative.

EVALASTIC® roofing and waterproofing membranes are homogeneously hot-air welded and sealed under site conditions. Due to the elastic characteristics of the EPDM material, the membranes resist extreme variations of temperature without any damage: the service temperature ranges from -30°C up to +100°C.

New building or refurbishment, ventilated or non-ventilated roofs, roof gardens or industrial roofs – EVALASTIC® is an ecologically sound choice for all application techniques and roof configurations. The high quality of EVALASTIC® roofing and waterproofing membranes is not compromised by internal reinforcement or lamination of layers. This premium waterproofing with homogeneous, hot-air welded seams has a long service life.

The build-up and the intended use of the roof area, will determine whether EVALASTIC® V, the reinforced membrane with polyester-fleece backing, would be a more appropriate choice of membrane.

Choose EVALASTIC® today for a roofing system which will still be advanced tomorrow!

- high-quality EPDM membrane
- absolutely free from bitumen, plasticizers, PVC, chlorine or the like
- bitumen-compatible
- compatible with all kinds of insulation materials
- homogeneous on-site seam welding by simple and environmentally friendly hot-air jointing
- outstanding resistance to chemicals and weathering
- extremely high resistance to low temperatures
- universally applicable in all climate zones
- exemplary life cycle assessment results: long service life with carefully selected resources
- can be recycled
- quality controlled product also in accordance with DIN ISO 9001
- certified product quality according to the EC-eco-audit regulation DIN ISO 14001
## Technical data

### Excerpt
Tests according to DIN EN 13956 and DIN EN 13967

<table>
<thead>
<tr>
<th>Properties</th>
<th>Testing method</th>
<th>Unit</th>
<th>Result *</th>
<th>EVALASTIC® unbacked</th>
<th>EVALASTIC® V with polyester fleece backing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visible defects</td>
<td>EN 1850-2</td>
<td></td>
<td></td>
<td>passed</td>
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<tr>
<td>Effective thickness (e_{eff}) of the waterproofing</td>
<td>EN 1849-2</td>
<td>mm</td>
<td></td>
<td>1.2/1.5</td>
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<tr>
<td>Water tightness</td>
<td>EN 1928 method B</td>
<td>kPa</td>
<td></td>
<td>≥ 400</td>
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<tr>
<td>External fire performance</td>
<td>ENV 1187</td>
<td></td>
<td></td>
<td>class B_{min}(t1)</td>
<td>Resistant to flying sparks and radiant heat, confirmed by General Building Construction Supervision Test Certificates</td>
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<tr>
<td>Reaction to fire</td>
<td>EN 13501-1: 2002</td>
<td></td>
<td></td>
<td>class E</td>
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<tr>
<td>Joint peel resistance</td>
<td>EN 12316-2</td>
<td>N/50mm</td>
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<td>≥ 80</td>
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<tr>
<td>Joint shear resistance</td>
<td>EN 12317-2</td>
<td>N/50mm</td>
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<td>≥ 200 b</td>
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<tr>
<td>Tensile strength</td>
<td>EN 12311-2</td>
<td>N/mm²</td>
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<td>≥ 5</td>
<td>≥ 500</td>
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<tr>
<td>Max. tensile force</td>
<td>EN 12311-2</td>
<td>N/50mm</td>
<td></td>
<td>≥ 300</td>
<td>≥ 50</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>EN 12311-2</td>
<td>%</td>
<td></td>
<td>≥ 300</td>
<td>≥ 50</td>
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<tr>
<td>Elongation at max. tensile force</td>
<td>EN 12691 method B</td>
<td>mm</td>
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<td>≥ 300</td>
<td>≥ 300</td>
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<td>Resistance to impact load</td>
<td>EN 12730 method B</td>
<td>kg</td>
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<td>≥ 20</td>
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<tr>
<td>Resistance to static load</td>
<td>EN 12730 method B</td>
<td>kg</td>
<td></td>
<td>≥ 20</td>
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<tr>
<td>Tear resistance (nail shank)</td>
<td>EN 12310-1 EN 12310-2</td>
<td>N</td>
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<td>≥ 80</td>
<td>≥ 80</td>
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<tr>
<td>Resistance to root penetration</td>
<td>prEN 13948</td>
<td>passed</td>
<td></td>
<td>passed c</td>
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<td>Dimensional stability</td>
<td>EN 1107-2</td>
<td>%</td>
<td></td>
<td>≤ 2</td>
<td>≤ 0.5</td>
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<td>Foldability at low temperatures</td>
<td>EN 495-5</td>
<td>°C</td>
<td></td>
<td>≤ 35</td>
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<tr>
<td>Durability (UV exposure, high temperatures and water)</td>
<td>EN 1297</td>
<td>visual control</td>
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<tr>
<td>Durability of water tightness to weathering</td>
<td>EN 1296 EN 1928</td>
<td>kPa</td>
<td></td>
<td>≥ 60</td>
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<tr>
<td>Durability of water tightness to chemicals incl. water</td>
<td>EN 1847 EN 1928</td>
<td>kPa</td>
<td></td>
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<td>Hail resistance</td>
<td>EN 16583</td>
<td>m/s</td>
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<td>KLF</td>
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<td>Water vapour permeability</td>
<td>EN 1931</td>
<td>µ</td>
<td></td>
<td>60,000</td>
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<td>Ozone resistance</td>
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<tr>
<td>Bitumen compatibility</td>
<td>prEN 1548</td>
<td></td>
<td></td>
<td>passed</td>
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</tr>
</tbody>
</table>

* Minimum requirements without specified tolerances
b or tear outside the joint

c Waterproofing and welding technique identical with EVALASTIC®, unbacked
KLF = no results, membrane will be applied under ballast only (e.g. gravel, slabs, vegetation)

The results contained in this document are taken from tests and comply with the current standards as of 01/07. Normal tolerances apply.
alwitra reserves the right to improve their products at any time without prior notice.