**Penguin Series**

Penguin Series waterproofing membranes are plastomeric bituminous waterproofing sheets that are ideal for cold, hot and mild climate zones. Atactic Polypropylene (A.P.P.) with thermoplastic resin is used in this type of membranes to enhance durability of the bitumen. The fiberglass and polyester reinforcements inside the membranes provide a higher resistance against tensions by enhancing the mechanical resistance. Penguin series membranes are very commonly used in many markets. Membranes with a 1 meter width are produced at 10 meters length. Only the membranes of 2 mm thickness are produced at 1 meter width and at 15 meters length.

**Areas of usage**

While bituminous membranes are used anywhere water can leak into such as; walls in contact with soil, foundations, floorings that fit on the ground, they can be used at places the water can pond or wet areas below water level such as; external walls, balconies, terraces, sloped roofs, bathrooms, kitchens, toilets.

In addition, Penguin bituminous waterproofing sheets are used in water tanks, pools, safety walls and, depending on the characteristics of the surface, in artificial lakes and concrete canals. Penguin waterproofing sheets brings economic and aesthetic solutions many more issues..

**FEATURES**

- Provides a strong hold of the surface and great adhesion. Retains this quality after the application too. Especially, in foundation curtain wall insulation this feature is more clearly visible. Can be applied on different surfaces like wood and concrete.

- Demonstrates more than enough flexibility against structural movements with its longitudinal and transverse tensile strength. Durable against movements and dilatation.

- Neither melting in hot weather nor breaking or cracking in cold weather. Our membranes are easily applied using torch fire. With proper cutting equipment, they can be cut as needed.

- Demonstrates perfect compliance to dilatations, concrete gutters, parapet turns and chimney flashings. When used as instructed and under sufficient protection, gives lifelong insulation to the building.

**Cold Flexibility**: 
-5°C

**Heat resistance**: 110°C

---

Polyethylene Film
Modifed bitumen with APP
Glass tissue or polyester reinforcement
Modifed bitumen with APP
Polyethylene Film
Panda Series waterproofing membranes are plastomeric waterproofing membranes, the ideal choice in continental climate (cold and hot). The fiberglass and polyester reinforcements inside the product give the bitumen a better durability. To enhance the physical resistance of the membranes, fiberglass or polyester mat is used as reinforcement.

Areas of usage
While bituminous membranes are used anywhere water can leak into such as; walls in contact with soil, foundations, floorings that sit on the ground, they can be used at places the water can pond or wet areas below water level such as; external walls, balconies, terraces, sloped roofs, bathrooms, kitchens, toilets.

In addition, Panda bituminous waterproofing sheets are used in water tanks, different types of pools, safety walls, concrete canals, parking areas and at places under heavy tension such as roadways, railroad transportation systems, bridges and viaducts.

FEATURES

- Waterproofing membranes with diverse areas of use due to great performance in different climates. With its impermeability, provides certain waterproofing.

- Provides a strong hold of the surface and great adhesion. Retains this quality after the application too. Especially, in foundation curtain wall insulation this feature is more clearly visible. Can be applied on different surfaces like wood and concrete.

- Demonstrates more than enough Flexibility against structural movements with its longitudinal and transverse tensile strength. Durable against movements and dilatation.

- Neither melting in hot weather nor breaking or cracking in cold weather. Our membranes are easily applied using torch fire. With proper cutting equipment, they can be cut as needed.

- Demonstrates perfect compliance to dilatation, concrete gutters, parapet turns and chimney flashing. When used as instructed and under sufficient protection, gives lifelong insulation to the building.

Cold Flexibility : -10 °C
Heat resistance : 120 °C
Fok Series

Fok Series waterproofing membranes are elastomeric bituminous waterproofing sheets that are ideal for especially cold climate zones. This type of bituminous membranes are enriched with Styrene – Butadiene – Styrene (SBS) with thermo plastic resin, to enhance the durability of the bitumen. The fiberglass and polyester reinforcements inside the membranes provide a higher resistance against tensions by enhancing the mechanical resistance. Membranes with a 1 meter width are produced at 10 meters length. Only the membranes of 2 mm thickness are produced at 1 meter width and at 15 meters length.

Areas of usage
Fok Series bituminous waterproofing sheets are elastomeric (SBS) based. They contain polyester mat or fiberglass reinforcement to enhance tension resistance.

Fok Series, the ideal choice in cold climates are used on walls in touch with soil, foundations or floorings that fit on the ground. As well as these, they can be used at places the water can pond or wet areas below water level such as: external walls, balconies, terraces, sloped roofs, bathrooms, kitchens, toilets, water tanks, pools, safety walls and, depending on the characteristics of the surface, in artificial lakes and concrete canals.

Especially, because its flexible structure can endure dilatations or shrinking, in moving structures, deep foundations and metal roofs FOK is frequently preferred.

FEATURES

- Under conditions where the temperature is below freezing point, FOK series products do not lose their performance and retain their flexibility. They demonstrate more than enough flexibility against structural movements with its longitudinal and transverse tensile strength.

- FOK series membranes are suitable for hot asphalt application too.

- Provides a strong hold of the surface and great adhesion. Retains this quality after the application too. Especially, in foundation curtain wall insulation this feature is more clearly visible. Can be applied on different surfaces like wood and concrete.

- Resistant against structural movements and dilatation. With its quite flexible structure, it is preferred in metal roofs which always have a tendency to dilate and bend.

- Neither melting in hot weather nor breaking or cracking in cold weather. Our membranes are easily applied using torch fire. With proper cutting equipment, they can be cut as needed.

- Demonstrates perfect compliance to dilatation, concrete gutters, parapet turns and chimney flashing. When used as instructed and under sufficient protection, gives lifelong insulation to the building.
PRINCO Series

Princo Series waterproofing membranes are plastomeric bituminous waterproofing sheets that are ideal for cold and mild climate zones. Atactic Polypropylene (A.P.P) with thermoplastic resin is used in this type of membranes to enhance durability of the bitumen. The fiberglass and polyester reinforcements inside the membranes provide resistance against tensions by enhancing the mechanical resistance. Princo series membranes are very commonly used in many markets. Membranes with a 1 meter width are produced at 10 meters length.

Areas of usage
While bituminous membranes are used anywhere water can leak, they can be used at places the water can pond or wet areas below water level such as; external walls, balconies, terraces, sloped roofs, bathrooms, kitchens, toilets. Not appropriate for use on green roofs. Not used as surface layer or single ply.

RECOMMENDATIONS:
1. Application surface must be smooth, free of moisture, ponding water and dust.
2. The application area must be provided with an adequate drainage system.
3. The substrate must be primed with a bituminous based product (Standart PRIMER) and allowed to dry prior to application. At least 400 g/m² of application is advised. For utmost results, 800 g/m² is recommended.
4. Do not apply below +5 °C.
5. Do not apply under adverse weather conditions.
6. In case of application on vertical or considerable slopes, apply proper mechanical fasteners.
7. See our website (www.standartinsulation.com or youtube channel) for application details and supporting visuals.

Cold Flexibility : -10 °C
Heat resistance : 110 °C

Polyethylene Film
Modified bitumen with APP
Glass tissue or polyester reinforcement
Modified bitumen with APP
Polyethylene Film
Mineral Surface Membrane

Standart reflective mineral coated bituminous sheets are a common solution to many waterproofing problems with their precise impermeability and wide areas of application. This type of bituminous membranes have a reflective mineral coated upper surface while the lower surface is covered with Polyethylene film.

Fiberglass or Polyester mat is used in mineral coated bituminous membranes produced either Plastomeric (A.P. Modified) or Elastomeric (S.B.S. Modified). Mineral coated membranes are produced at 1 meter width and 10 meters length.

FEATURES

- Red, Green, Grey and White are color options.
- Used on the last upper layer, the product demonstrates technical and aesthetical insulation solutions.
- UV resistant thanks to the mineral coating.
- Does not require additional protective concrete.
- Demonstrates perpetuity.
- Practical, applied very fast and easily with Torch fire. Long lasting and economic.
- Durable against structural movements and dilatation.
- Complies with every climate thanks to wide range of products.
- Environment friendly, does not harm the nature or living beings.
- Demonstrates perfect watertightness with its impermeability.
- Provides a strong hold of the surface and great adhesion.
- With dedicated cutting equipment, they can be cut as needed.
- Demonstrates perfect compliance to dilatation, concrete gutters, parapet turns and chimney flashing.

COLORS

- Red
- Natural Slated
- Green
- Grey
- Green Black
- Tobacco Grey
- Orange Melange
- Mix Grey
- Night Coffee
- Red and White
- Night Blue
- Red and Black
- Green and White

Custom colors available on demand.
Membrane Application Images
Quickshingle

Quick Shingle was created to be used in place of any kind of roofing material. It is a granule stone coated bituminous membrane roofing material with surface of painting or formed theme, pattern (tile image, etc.) figure, image, logo and / or print. Quick shingle has been produced as an alternative roofing material for terrace and sloping roofs.

WHY SHOULD I USE QUICKSHINGLE?

■ Low labor cost.
■ A workman lays 30-50m² shingles, 20-30m² tiles but 80-100m² quick shingle in one shift. Low wastage and light weight compared to other types. It can be applied by end users because of its easy application.
■ Weight: 3 times lighter than its competitors.
■ Nonfading: Stays colored for long years thanks to its UV protecting pigments.
■ Leak proof: Full leak proofing and insulation because of Torch application and no nails.

FEATURES

■ Economic price and low labor cost
■ Easy application, even by end user
■ Monolithic pattern and its self adhesive features prevents tearing caused by wind
■ Strong and reliable
■ Monolithic pattern prevents dust and dirt because of its flat surface in contrast to leaf type shingles.
■ Adds value to buildings with changing the view of the building.

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>VALUE</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>10</td>
<td>m</td>
</tr>
<tr>
<td>Width</td>
<td>1</td>
<td>m</td>
</tr>
<tr>
<td>Thickness</td>
<td>3,5</td>
<td>mm</td>
</tr>
<tr>
<td>Weight</td>
<td>&gt;40</td>
<td>KG / Roll</td>
</tr>
<tr>
<td>Water Tightness</td>
<td>10   kPa</td>
<td>kPa</td>
</tr>
<tr>
<td>Flexibility at low temperature</td>
<td>-5</td>
<td>°C</td>
</tr>
<tr>
<td>Tensile Strength (Width)</td>
<td>400 N/50mm</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength (Length)</td>
<td>600 N/50mm</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break (Width)</td>
<td>30 %</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break (Length)</td>
<td>30 %</td>
<td></td>
</tr>
<tr>
<td>Flow resistance at elevated temperatures</td>
<td>110 °C</td>
<td></td>
</tr>
<tr>
<td>Behaviour to Fire</td>
<td>E</td>
<td>-</td>
</tr>
<tr>
<td>Hazardous material</td>
<td>N/A</td>
<td>-</td>
</tr>
<tr>
<td>External Fire Performance</td>
<td>Broof</td>
<td></td>
</tr>
</tbody>
</table>

Four season: It can be applied at any sloping roof and in any season.
When first roll is applied, the designs of second roll absolutely should come up to the design of first roll (horizontally).

Designs of membranes are engineered as repeating each other (vertically).

Easy cut, easy application.

Now it's very easy to have designed roofs by sticking with torch (torchable types).

Gives possibility to make easy application on critical roofs by its self adhesive feature (Self adhesive types).

Standart Production
Colors: Red, Green, Brown, Grey and Blue

Custom color and pattern can be produced on demand.
Alfo Membrane

Aluminium coated bituminous sheets used as the uppermost layer are applied practically using torch fire. Presents aesthetic and economic ways in insulation. Resistant to UV rays and heavy weather conditions.

**Areas of usage**

Roofs and terraces, parapets, chimneys, sloped gutters and hidden gutters and in many such details.

**CUSTOM COLORS SUITABLE FOR ROOFS**

**PENGUEN (PLASTOMERIC SERIES) A.P.P. MODIFIED**

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REINFORCEMENT</strong></td>
<td>FIBER GLASS</td>
</tr>
<tr>
<td><strong>THICKNESS</strong></td>
<td>MM 2 3 4 4.5-5 4.5-6 4.5-6</td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td>M 1 1 1 1 1 1 1</td>
</tr>
<tr>
<td><strong>LENGTH</strong></td>
<td>M 15 20 15 20 15 20 15</td>
</tr>
<tr>
<td><strong>HEAT RESISTANCE</strong></td>
<td>°C -10 -10 -10 -10 -10 -10 -10</td>
</tr>
<tr>
<td><strong>COLD FLEXIBILITY</strong></td>
<td>°C -20 -20 -20 -20 -20 -20 -20</td>
</tr>
<tr>
<td><strong>WATER IMPERMEABILITY</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>LONGITUDINAL ELONGATION</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>TRANSVERSE ELONGATION</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>COVERING (FRONT)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
<tr>
<td><strong>COVERING (BACK)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
</tbody>
</table>

**PANDA (PLASTOMERIC SERIES) A.P.P. MODIFIED**

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REINFORCEMENT</strong></td>
<td>FIBER GLASS</td>
</tr>
<tr>
<td><strong>THICKNESS</strong></td>
<td>MM 2 3 4 4.5-5 4.5-6 4.5-6</td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td>M 1 1 1 1 1 1 1</td>
</tr>
<tr>
<td><strong>LENGTH</strong></td>
<td>M 15 20 15 20 15 20 15</td>
</tr>
<tr>
<td><strong>HEAT RESISTANCE</strong></td>
<td>°C -10 -10 -10 -10 -10 -10 -10</td>
</tr>
<tr>
<td><strong>COLD FLEXIBILITY</strong></td>
<td>°C -20 -20 -20 -20 -20 -20 -20</td>
</tr>
<tr>
<td><strong>WATER IMPERMEABILITY</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>LONGITUDINAL ELONGATION</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>TRANSVERSE ELONGATION</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>COVERING (FRONT)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
<tr>
<td><strong>COVERING (BACK)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
</tbody>
</table>

**FOK (ELASTOMERIC SERIES) S.B.B. MODIFIED**

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REINFORCEMENT</strong></td>
<td>FIBER GLASS</td>
</tr>
<tr>
<td><strong>THICKNESS</strong></td>
<td>MM 2 3 4 4.5-5 4.5-6 4.5-6</td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td>M 1 1 1 1 1 1 1</td>
</tr>
<tr>
<td><strong>LENGTH</strong></td>
<td>M 15 20 15 20 15 20 15</td>
</tr>
<tr>
<td><strong>HEAT RESISTANCE</strong></td>
<td>°C 100 100 100 100 100 100 100</td>
</tr>
<tr>
<td><strong>COLD FLEXIBILITY</strong></td>
<td>°C -20 -20 -20 -20 -20 -20 -20</td>
</tr>
<tr>
<td><strong>WATER IMPERMEABILITY</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>LONGITUDINAL ELONGATION</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>TRANSVERSE ELONGATION</strong></td>
<td>% 35 35 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>COVERING (FRONT)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
<tr>
<td><strong>COVERING (BACK)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
</tbody>
</table>

**PRINCO (PLASTOMERIC SERIES) A.P.P. MODIFIED**

<table>
<thead>
<tr>
<th>TECHNICAL SPECIFICATIONS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REINFORCEMENT</strong></td>
<td>POLYESTER</td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td>KG/M² 3 4 3.5 4 4.5</td>
</tr>
<tr>
<td><strong>LENGTH</strong></td>
<td>M 15 15 15 15 15</td>
</tr>
<tr>
<td><strong>HEAT RESISTANCE</strong></td>
<td>°C 100 100 100 100 100</td>
</tr>
<tr>
<td><strong>COLD FLEXIBILITY</strong></td>
<td>°C -20 -20 -20 -20 -20</td>
</tr>
<tr>
<td><strong>BITUMEN BREAKING POINT (FRAASS)</strong></td>
<td>°C -35 -35 -35 -35 -35</td>
</tr>
<tr>
<td><strong>WATER IMPERMEABILITY</strong></td>
<td>% 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>LONGITUDINAL ELONGATION</strong></td>
<td>% 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>TRANSVERSE ELONGATION</strong></td>
<td>% 35 35 35 35 35</td>
</tr>
<tr>
<td><strong>COVERING (FRONT)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
<tr>
<td><strong>COVERING (BACK)</strong></td>
<td>PE PE PE PE PE PE PE PE</td>
</tr>
</tbody>
</table>

**STANDART INSULATION**

www.standartinsulation.com / "Quality of Standart, standard of quality"
Simshingle is an aesthetic roof sheet with detachable film laminated lower surface, natural colored mineral slatted upper surface and is composed of fiberglass reinforcement of 110 g/m² density and high quality APP added bitumen.

Thanks to the sticky nature of bitumen, Simshingle demonstrates perfect adhesion with its adhesive characteristic, highly weatherproof, helpful in fine detailing, maintenance free and quickly applicable.

Easily adaptive to every roof type, Sim Shingle is applied on wooden, metal and/or sloped roofs and on building facades. In addition, it can be applied on curvilinear roofs such as domes and cross vaults. The lightweight roofing material characteristics of Simshingle make it a good alternative to heavier materials.

FEATURES

- Resistant to bad weather and winds.
- Does not pop out.
- UV resistant.
- Flexible, does not crack or break.
- Not effected by temperature and weather condition changes.
- No peeling of surface minerals.
- Lightweight, very portable and puts no additional load on structures.
- Easily applicable with torch.
- No extra accessories required in fine detail solutions.

COLORS

- Red
- Natural Stone
- Green
- Grey
- Green Black
- Beige Mix
- Beige Mixage
- Mix Grey
- Night Coffee
- Red and White
- Night Blue
- Red and Black
- Green and White

Custom colors available on demand.

NEW DESIGN

CLASSIC (Flattened) HEXAGONAL EFFECT

<table>
<thead>
<tr>
<th>Reinforcement</th>
<th>FIBERGLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>320mm</td>
</tr>
<tr>
<td>Length</td>
<td>1000mm</td>
</tr>
<tr>
<td>Longitudinal Tensile Strength</td>
<td>600 N/5cm</td>
</tr>
<tr>
<td>Transverse Tensile Strength</td>
<td>600 N/5cm</td>
</tr>
<tr>
<td>Net Coverage area Package</td>
<td>2.56m²</td>
</tr>
<tr>
<td>Packaging Style</td>
<td>made of polyethylene packaging</td>
</tr>
<tr>
<td>Number of leafs Package</td>
<td>17 Piece</td>
</tr>
<tr>
<td>Package Weight</td>
<td>20kg</td>
</tr>
<tr>
<td>Softening Point</td>
<td>125 °C</td>
</tr>
</tbody>
</table>

CLASSIC (Flattened) HEXAGONAL EFFECT

<table>
<thead>
<tr>
<th>Reinforcement</th>
<th>FIBERGLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>320mm</td>
</tr>
<tr>
<td>Length</td>
<td>1000mm</td>
</tr>
<tr>
<td>Longitudinal Tensile Strength</td>
<td>600 N/5cm</td>
</tr>
<tr>
<td>Transverse Tensile Strength</td>
<td>600 N/5cm</td>
</tr>
<tr>
<td>Net Coverage area Package</td>
<td>2.5m²</td>
</tr>
<tr>
<td>Packaging Style</td>
<td>made of polyethylene packaging</td>
</tr>
<tr>
<td>Number of leafs Package</td>
<td>18 Piece</td>
</tr>
<tr>
<td>Package Weight</td>
<td>17kg</td>
</tr>
<tr>
<td>Softening Point</td>
<td>125 °C</td>
</tr>
</tbody>
</table>
SIM SELF
(TAPES-MEMBRANES)
Self Tapes (Self-Adhesive)

Specially made of SBS Modified and self adhesive bitumen. Has 1.5 mm thickness.

COLORS: Natural Aluminium color, Red and Green.

**ALUMINIUM FOIL COATED**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Unit</th>
<th>Sim Self Tape</th>
<th>Aluminium Foil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness mm</td>
<td></td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Weight Kg/m²</td>
<td></td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Width cm</td>
<td></td>
<td>10-15-20-30-60</td>
<td></td>
</tr>
<tr>
<td>Length m</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Covering (Front)</td>
<td></td>
<td>Aluminium Foil</td>
<td></td>
</tr>
<tr>
<td>Covering (back)</td>
<td></td>
<td>Detachable Film</td>
<td></td>
</tr>
</tbody>
</table>

Specially made of APP Modified and self adhesive bitumen. Contains polyester mat

COLORS: Natural Aluminium color, Red and Green.

**MINERAL COATED**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Unit</th>
<th>Sim Self Tape</th>
<th>with Mineral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness mm</td>
<td></td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Weight Kg/m²</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Width cm</td>
<td></td>
<td>10-15-20-30-60</td>
<td></td>
</tr>
<tr>
<td>Length m</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Carrier</td>
<td></td>
<td>polyester</td>
<td></td>
</tr>
<tr>
<td>Covering (Front)</td>
<td></td>
<td>Natural Mineral</td>
<td></td>
</tr>
<tr>
<td>Covering (back)</td>
<td></td>
<td>Detachable Film</td>
<td></td>
</tr>
</tbody>
</table>

Areas of usage

Simself tapes are bitumen based waterproofing tapes with one surface covered with aluminium foil or colored minerals and other surface covered with detachable film. Simself tapes are not negatively effected by sunlight due to its natural aluminium foil or natural mineral coating. Thanks to its Flexibility, it can be comfortably applied on curvilinear or skewed surfaces. Simself Tapes, through water tightness and self adhesiveness, present practical solutions in many fine details. It is produced in rolls of 10-15-20-30-60 cm width and 10 meters length.

After the detachable film layer on one side of SimSelf Tape is peeled, the tape is ready to stick. However, to provide a good adhesion, the application surface has to be clean and dry. And on concrete surfaces, Standart bituminous primer should be applied prior to application and after the drying of the primer layer, Sim Self Membrane has to be stuck onto the already dry surface.
Self Membrane (Self-Adhesive)

Simself are bitumen based self adhesive waterproofing membranes with polyethylene or colored natural mineral on one face and detachable folio on the other.

**Areas of usage**

Since Simself membranes can adhere to various surfaces such as wood, plastic, glass, mortar, concrete and more, they can be used on walls, parapets, chimney flashings, eaves, copings, gable walls, cracks in roof covering tiles, ship deck waterproofing, automotive industry, etc. Especially, where Torch fire is risky or unsuitable to use. Simself can easily be applied on fine details. Its self-adhesive lower surface can easily be applied on heat insulation boards (XPS, EPS, etc.) and materials non resistant to heat such as plastic and wood. In addition, on curvilinear and skewed roofs, its use is very easy and it takes the form of the application surface.

**FEATURES**

Simself Membrane, which can be produced with mineral coating on one face, can be used as the uppermost layer material on covering. With its self adhesiveness, watertightness and resistance to structural movements, Simself Membranes bring practical solutions to many fine details. Thanks to its flexibility, comfortably applied on curvilinear or skewed surfaces. Produced in rolls of 1 meter width and 10 meters length.

The membrane becomes ready to stick when the film layer is peeled. But to provide a good adhesion, the application surface should be dry and clean. And on concrete surfaces, Standart bituminous primer should be applied prior to application and after the drying of the primer layer, Sim Self Membrane has to be sticked onto the already dry surface.

---

**Self Double Sided Membrane**

It is a both sided self adhesive polyester reinforced special polymer bituminous waterproofing membrane. It is used as first layer waterproofing at roofs and construction basements. It brings many practical solutions with its water tightness, compatibility to structures and self adhesiveness.

It can be applied to curved surfaces thanks to its flexibility, it is manufactured in 10 m length rolls with 1,5 mm, 2,0 mm and 3 mm thickness. In cases when torch fire is not preferred to use it can be cold applied. With this feature, it is especially preferred in the renovation of historical buildings. Thanks to its both sided self adhesive feature it achieves a strong adherence between substrate and the second layer membrane.

**FEATURES**

Application Areas: Since Simself membranes can adhere to various surfaces such as wood, plastic, glass, mortar, concrete and more, they can be used on walls, parapets, chimney flashings, eaves, copings, gable walls, cracks in roof covering tiles, ship deck waterproofing, automotive industry, etc. especially where Torch fire is risky or unsuitable to use. Simself can easily be applied on fine details. Its self-adhesive lower surface can easily be applied on heat insulation boards (XPS, EPS, etc.) and materials non resistant to heat such as plastic and wood. In addition, on curvilinear and skewed roofs, its use is very easy and it takes the form of the application surface.

**Method of application:** After the film removal the membrane becomes available to adhesion to surface. Membrane is laid to surface directly to adhere the surface. After application, all surfaces especially overlays and joint points must be pressed with silicone rolls so that no bubbles are left and full adhesion is ensured. Before the second layer simself membrane is applied, the upper film of the first applied membrane should be removed and then the below film of the second layer membrane is removed and adhered to the first layer membrane.
SIMPROOF MEMBRANE

The SIMPROOF membrane system offers a professional waterproofing solution in deep foundations and single side shear walls. Prevents possible water movements by fully adhesion to structural reinforced concrete. Does not require protective concrete. In the case of possible ground subsidence, the waterproofing is not separated from the reinforced concrete elements.

ADVANTAGES

■ It is applied before concrete is poured.
■ High performance at below grade and blank mould applications.
■ It does not allow lateral water movements by providing complete adhesion with poured structural concrete.
■ Its application is fast and easy. Overlaps are self adhesive.
■ Waterproofing is also completed along with pouring of concrete.
■ It is resistant to water pressure up to 11,5 bar (115 m) after adhesion to concrete.
■ The system does not require protective concrete.
■ It can be easily cleaned.
■ It is not affected by hot / cold phase transitions.
■ It is very resistant to subterranean conditions.
■ It has salt water resistance.
■ It is not effected by ground subsidence.
■ It prevents water leaks, hence unnecessary injection costs.

PRODUCT DESCRIPTION

It is a SBS modified and polyester reinforced professional waterproofing membrane with 3.0 - 3.5 - 4.5 mm thickness, covered with a special mineral layer which is loose laid before pouring the concrete and comes into reaction and adheres permanently by hydroheating.
Proof Membrane

TOTAL UNIT COST

Traditional Waterproofing Systems

Concrete Bonded Membrane Systems

WATERPROOFING APPLICATION

1. Membrane is loose laid.
2. The joints are aligned.
3. Remove the protective tape.
4. Joints are adhered and passed over with a printing roller.
5. Final checks are made on the membrane.
6. Reinforcement can be made before pouring the protective concrete.

Scan QR code for application & intro videos
Marine Membrane

FEATURES
As known, sea water contains alkali metals, sulfate and some acids. It is necessary to prevent these substances from harming the structure and waterproofing layer protecting the structure. With special additives used in the chemical structure of the marine membrane, higher resistance against alkali metals, sulfate and some acids is achieved.

In this type of bituminous membranes, specially formulated elastomeric bitumen is used to enhance resistance to sea water. Polyester mat reinforcement is used to enhance the mechanical resistance to tension. Sim Marine membranes are produced in rolls of 1 meter width and 10 meters length.

Areas of usage
Harbors, port decks, bridge piers, marina construction and similar areas, structures and buildings on shores.

<table>
<thead>
<tr>
<th>Features</th>
<th>Unit</th>
<th>Marine SP3000</th>
<th>Marine SP4000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforcement</td>
<td></td>
<td>Polyester</td>
<td>Polyester</td>
</tr>
<tr>
<td>Thickness (mm)</td>
<td>mm</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Weight (Kg/m²)</td>
<td>Kg/m²</td>
<td>3.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Width (m)</td>
<td>m</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Length (m)</td>
<td>m</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Heat resistance</td>
<td>°C</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Cold Bending °C</td>
<td>°C</td>
<td>-20</td>
<td>-20</td>
</tr>
<tr>
<td>Longitudinal tensile str. N/5cm</td>
<td>800</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>Transverse tensile Str. N/5cm</td>
<td>600</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Covering (Front)</td>
<td></td>
<td>Polyethylene</td>
<td>Polyethylene</td>
</tr>
<tr>
<td>Covering (back)</td>
<td></td>
<td>Polyethylene</td>
<td>Polyethylene</td>
</tr>
</tbody>
</table>

Polyethylene Film
Modified bitumen with SBS
Fiberglass or Polyester mat reinforcement
Modified bitumen with SBS
Polyethylene Film
A.P.P. Modified bituminous waterproofing membranes to be used in hot, mild and continental (medium cold) climates. Produced at 1 meter width, 10 meters length and at 4 mm thick. Production with both faces polyethylene film covered or one face polyethylene the other thin sand covered are possible. As reinforcement, polyester mat with high durability is used.

Sim Panda Via - Areas of usage
Especially for use in: bridges, viaducts, highways, parking areas, railroads and else areas with similar exposure to very high tension as well as any areas where water leaks into.

Sim Power Via membranes are double layer polyester mat reinforced, elastomeric (SBS modified) bituminous waterproofing sheets developed especially for structures exposed to extreme tension. Despite being elastomeric, Sim Power Via achieves resistance to very high temperature and with two separate reinforcements in its structure, exhibits an excellent performance against high tension.

Sim Power Via - Areas of usage
Provides waterproofing solution to areas carrying moving loads such as bridges, viaducts, multi storey parking areas, etc. Since in new road projects, Polymeric bituminous mixtures are used in combination with SBS type of additives, SBS Modified bituminous membranes such as Sim Power Via are perfectly suitable for use in both new and old applications.
Sim Garden Membrane is a waterproofing sheet developed to be used at places such as Gardens and terraces. The basic differences from other bituminous sheets are its special formulation and root resistant film layer (metal-plastic compact carrier) in its structure. Thanks to its specially formulated mixture, Sim Garden does not allow the plant roots to pass through them while the special film layer is a very strong guard against even the strongest roots and keeps them away. Produced in rolls of 1 meter width and 10 meter length at 3 mm or 4 mm thicknesses. Elastomeric Sim Garden is made of Styrene Butadine Styrene (SBS) Modified bitumen and plastomeric Sim Garden is made of Atactic Polypropylene (APP) Modified bitumen.

**Areas of usage**
Generally used to achieve watertightness on terrace roofs of structures. In external basement tanking, foundation and curtain wall applications.

On all surfaces in somehow contact with soil and on all surfaces, requiring flexibility, in contact with soil and water.

Garden, Garden terrace, Garden balcony, parking area, etc. Also, for waterproofing in external basement tanking, foundation and curtain walls...

<table>
<thead>
<tr>
<th>Features</th>
<th>Unit</th>
<th>PLASTOMERIC</th>
<th>ELASTOMERIC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SP 3000</td>
<td>SP 4000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SP 3000</td>
<td>SP 4000</td>
</tr>
<tr>
<td>Reinforcement</td>
<td>mm</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Thickness</td>
<td>m</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Width</td>
<td>m</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Length</td>
<td>m²</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Heat resistance</td>
<td>°C</td>
<td>-10</td>
<td>-10</td>
</tr>
<tr>
<td>Cold Bending</td>
<td>°C</td>
<td>120</td>
<td>20</td>
</tr>
<tr>
<td>Longitudinal tensile strength</td>
<td>N/5cm</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Transverse tensile strength</td>
<td>N/5cm</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Covering (Front)</td>
<td></td>
<td>Polyester</td>
<td>Polyester</td>
</tr>
<tr>
<td>Covering (back)</td>
<td></td>
<td>Polyethylene</td>
<td>Polyethylene</td>
</tr>
</tbody>
</table>

Polyethylene film
Polyethylene Modified bitumen
Polyethylene mat special additives
Modified bitumen
Polyethylene film
SELF CROSS LAMINATED MEMBRANE

Product Description
It is a high performance, cold applied, flexible, preformed waterproof membrane combining a special high performance cross-laminated, HDPE carrier film with a unique self-adhesive bitumen compound. Specifically designed for applications on foundations and to be used as a sealing element in vertical and horizontal waterproofing applications. Silicone film on the bottom surface is removed to provide easy and permanent insulation.

Application Areas
- Basement and Curtain Walls
- Sub-structures

Advantages
- Easy to prepare and easy to apply
- No Torch, no hot air supply required
- It adheres fully to the applied surface
- Combined flexible membrane and waterstop system for security
- Applicable on vertical and horizontal surfaces
- Provides insulation after application without requiring drying time
- Crack bridging feature
- Provides dimensional stability and puncture resistance

Technical Specifications
- Upper Surface: Cross Laminated High Density Polyethylene Film HDPE
- Lower Surface: Silicone Film
- Color: Black
- Installation Temperature: +5 oC - 35 oC
- Thickness: 1.5 mm
- Weight: 2 kg/m²

Packaging
20 m² rolls in carton boxes.

Garden Membrane

NEW PRODUCT

Flat decks
- Plaza decks / Roof gardens / Terraces
- In wet spaces, on retaining walls
- In the protection and insulation of building and building elements exposed to temporary or permanent water pressure to leakage water
- External insulation of water tanks
- For the insulation of underground garages and car parking lots
Sim Power Forex can be used in Steel Molds. Forex can be used in steel molds due to its flexible and solid structure and 1000kg/m³ density. Sim Power Forex’s solid body and fractural resistance increases the number of use in steel molds, allows more use compared to plywoods.

Advantages of Use:
- Gives exposed concrete. No need for mortaring.
- Helps applications of direct plastering or painting.
- Custom length available on demand.
- Resistant to drilling and cutting.
- Saves you the cost of epoxy coating needed to make plywood watertight.
- Long lasting unlike plywood.
- UV resistant.

Concrete Form Usage:
PI PLAK is an ideal product especially in concrete forms to get exposed concrete where more times of usage is demanded.

Environment friendliness and high resistance to corrosion due to its durability against chemical reactions make it a suitable and profitable choice in formwork. In comparison to plywood, it has lower durability but using shorter purlin choice, PI PLAK gives smoother concrete in the end with no need for mortaring.

Panel Sizes:
- Standard dimensions 2500x1250 mm
- Special dimensions upon demand
- Thickness 3 mm - 24 mm + / - %2
- Length/width tolerance is + / - 1 mm per meter
- Diagonal Rectangular Tolerance + / - 1 mm per meter

Scan QR code for application & intro videos
LIQUID PRODUCTS
**Astar (Primer)**

Standart ASTAR; a ready to use waterproofing material obtained by mixing water and bitumen through special methods.

Standart Astar is used before the Standart bituminous membrane application. With advanced adhesion feature gives the Standart bituminous membrane a more durable and spaceless adhesion.

Consumption: 400 g/m² every use
Bucket: Net 17 kg / Plastic Bucket

Scan QR code for application & intro videos
**Ex 2K**

**Features**
- Easily applied (brush, roll or trowel)
- Adheres perfectly to mineral surfaces such as concrete, stone, brick, briquet.
- Flexible, crack covering capacity is high.
- Must be applied cold. Does not require heating or diluting.
- Water based. Environment friendly.

**Application**
- Because it does not contain ammable or toxic substances, usage in closed areas is safe.
- Applies seamlessly since there is no overlap or joint. Cures fast.
- Chamfering must be done at corner turns.
- Surface preparation must be done prior to installation. For this reason, necessary repairing must be done and the surface should be freed from dust, stain, oil and loose layers that will hamper adhesion.
- Should not be applied in rainy weather or at temperatures below +5 C.
- Angle the vertical and horizontal corners by chamfering.
- A thicker bitumen layer can be obtained by adding fiberglass between layers.
- Should not be applied in rainy weather or at temperatures below +5 C.
- Should be applied in two layers at least. Before one layer dries, the other layer should not be applied.

**Packing Style**
- A+b component in 30 kg Plastic Bucket
- Liquid : 22 kg - Powder : 8 kg

**Storage**
- 5-30 C, vertically, in covered areas.

**Consumption**
- Used at 1.1 kg/m² density The thickness depends on the structure of application surface and water pressure on the surface.

---

**Polas**

**Features**
- Due to the special additives in its composition, highly durable, blanketing and flexible in comparison to traditional primers.
- Easily applied (Brush or roll)
- Must be applied cold. No heating or diluting required.
- Water based, environment friendly.
- Applies seamlessly since there is no overlap or joint.
- Because it does not contain ammable or toxic substances, usage in closed areas is safe.
- Can be applied on humid surfaces.
- A thicker bitumen layer can be obtained by adding fiberglass between layers.
- Surface preparation must be done prior to installation. For this reason, necessary repairing must be done and the surface should be freed from dust, stain, oil and loose layers that will hamper adhesion.
- Angle the vertical and horizontal corners by chamfering.
- To achieve a good adhesion to the surface, especially on not completely clean surfaces, water based Standart Bitumen Emulsion must be applied as a primer and be waited for to dry away prior to application.
- After opening and mixing thoroughly, apply the product on the surface using a roll or brush.
- Should not be applied in rainy weather or at temperatures below +5 C.
- Should be applied in two layers at least. Before one layer dries, the other layer should not be applied.
- A protective panel should be placed follflowing the application on foundation curtain walls
- No pedestrian traffic or no kind of load should be allowed until drying is complete.
- Should be reinforced with fiberglass depending on the size of the application area.

**Application:**
- Because it fully adheres to surfaces, its watertightness is perfect.
- Can be applied on humid surfaces.
- A thicker bitumen layer can be obtained by adding fiberglass between layers.
- Surface preparation must be done prior to installation. For this reason, necessary repairing must be done and the surface should be freed from dust, stain, oil and loose layers that will hamper adhesion.
- Angle the vertical and horizontal corners by chamfering.
- To achieve a good adhesion to the surfaces, especially on not completely clean surfaces, water based Standart Bitumen Emulsion must be applied as a primer and be waited for to dry away prior to application.
- After opening and mixing thoroughly, apply the product on the surface using a roll or brush.
- Should not be applied in rainy weather or at temperatures below +5 C.
- Should be applied in two layers at least. Before one layer dries, the other layer should not be applied.
- A protective panel should be placed following the application on foundation curtain walls
- No pedestrian traffic or no kind of load should be allowed until drying is complete.
- Should be reinforced with fiberglass depending on the size of the application area.
PVC
Homogenous, UV resistant, Reinforced, PVC Waterproofing Membranes
STANDART INSULATION

APPLICATION AREAS:
- Building foundation and wall waterproofing
- Waterproofing of underground galleries
- Ballasted Roofs
- Wet areas
- Highway, subway tunnels
- Hangar and planking
- Concrete Roofs
- Building Dilatation Systems

APPLICATION ADVANTAGES:
- High Quality meeting EN 13967 Quality Standards
- Vapor Permeable structure
- Plant Root Resistance
- Recyclable environment-friendly material that includes no heavy metal
- Homogenous product against corrosion and dissolution
- High flexibility value. Material which has dimensional stability
- Ability to maintain its flexibility in -25°C degrees temperature
- High tear resistance and impact strength
- Qualified and easy application options with heat air welder.
- Provides waterproofing in temperatures between -35°C and +85°C degrees

Homogenous PVC Waterproofing Membrane UV incompetent, vapor permeable, without reinforcement.

STANDART INSULATION

PLAN BASECAP

STANDART INSULATION

www.standartinsulation.com / “Quality of Standart, standard of quality” / 56

Features | Minimum Required Value | Test Result | Unit | Test Method
--- | --- | --- | --- | ---
Determination of watertightness Impermeable | Impermeable | - | EN 1928 (B)
Determination of watertightness post aging test Impermeable | Impermeable | - | EN 1296 ve EN 1928 (A)
Determination of visible defects No defect | No defect | - | EN 1850-2
Tensile strength | > 15 | > 18 | N/mm² | EN 12311-2
Flexibility/ Elongation at break | > 250 | > 300 | % | EN 12311-2
Resistance to static loading | > 20 | > 22 | Kg | EN 12330 (B)
Resistance to impact | > 400 | > 300 | mm | EN 12691 (A)
Resistance to tearing (nail shank) | > 300 | > 300 | N | EN 12310-1
Reaction to Fire | E-Class | E-Class | - | EN 13501-1
Shear resistance of joints | > 800 | > 800 | N/50mm | EN 12317-2
Water vapour transmission properties | 25/50 x 750 | 25/50 x 750 | µ | EN 1931
Determination of peel resistance of joints | > 150 | > 155 | N/50mm | EN 12116-2
Dimensional Stability | < 2 | < 2 | % | EN 1107-2
Determination of foldability at low temperature | < -25 | < -25 | °C | EN 485-5

Product Sizes:

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Width</th>
<th>Length</th>
<th>Colour*</th>
<th>Roll m²</th>
<th>Roll Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 mm</td>
<td>2 mt</td>
<td>25</td>
<td>Black</td>
<td>50 m²</td>
<td>81 kg</td>
</tr>
<tr>
<td>1.5 mm</td>
<td>2 mt</td>
<td>20</td>
<td>Black</td>
<td>40 m²</td>
<td>81 kg</td>
</tr>
<tr>
<td>1.8 mm</td>
<td>2 mt</td>
<td>20</td>
<td>Black</td>
<td>40 m²</td>
<td>97 kg</td>
</tr>
<tr>
<td>2.0 mm</td>
<td>2 mt</td>
<td>15</td>
<td>Black</td>
<td>30 m²</td>
<td>84 kg</td>
</tr>
</tbody>
</table>

* Different colors available on demand
PLAN BASECAP SIGNAL

Homogenous PVC Waterproofing Membrane UV incompetent, vapor permeable, without reinforcement, SOFT PVC waterproofing with signal layer. It can be adhered with hot air welder.

APPLICATION AREAS:
- Building foundation and wall waterproofing
- Ballasted Roofs
- Wet areas
- Waterproofing of underground galleries
- Highway and subway tunnels
- Hangar and planking
- Concrete Roofs
- Dilation of Building Systems

APPLICATION ADVANTAGES:
- High Quality meeting EN 13967 Quality Standards
- Vapor Permeable structure
- Plant Root Resistance
- Recyclable environment-friendly material that includes no heavy metal
- Homogenous product against corrosion and dissolution
- High flexibility value. Material which has dimensional stability Ability to maintain its flexibility in -25°C degrees temperature
- High tear resistance and impact strength
- Qualified and easy application options with heat air welder.
- Provides waterproofing in temperatures between -35°C and +85°C degrees
**PLAN WATERCAP**

Homogenous PVC Waterproofing

Membrane for Drinking Water Reservoirs Vapor permeable, without reinforcement, Anti – Bacterial, applied to drinking and potable water tanks SOFT PVC waterproofing membrane. It can be adhered with hot air welder easily.

**APPLICATION AREAS:**
- Drinking Water Reservoirs and Tanks as Top Layer
- Water Channels and Water Tanks as Top Layer
- Drinking and Potable water transmission systems

**APPLICATION ADVANTAGES:**
- High Quality meeting EN 13967 Quality Standards
- Vapor Permeable structure
- Antimicrobacterial Features
- Does not change of water physical and chemical properties
- Does not permit generation of bacteria and mosses on the surface.
- Recyclable environment friendly material that includes no heavy metal
- High flexibility value. Dimensionaly stable material
- Ability to maintain its flexibility in -25C degrees temperature
- High tear resistance and impact strength
- Qualified and easy application options with heat air welder
- Provides waterproofing in temperatures between -35 C and +85 C degrees
- Homogeneous product that has dissolution and decomposition resistances

**Features**

<table>
<thead>
<tr>
<th>Features</th>
<th>Minimum Required Value (EN)</th>
<th>Test Result</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination of watertightness</td>
<td>Impermeable</td>
<td>Impermeable</td>
<td>-</td>
<td>EN 12039 (B)</td>
</tr>
<tr>
<td>Determination of watertightness post aging test</td>
<td>Impermeable</td>
<td>Impermeable</td>
<td>-</td>
<td>EN 12039 (A)</td>
</tr>
<tr>
<td>Determination of visible defects</td>
<td>No-defect</td>
<td>No-defect</td>
<td>-</td>
<td>EN 1810-2</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>&gt; 15</td>
<td>&gt; 18</td>
<td>N/mm²</td>
<td>EN 12311-2</td>
</tr>
<tr>
<td>Flexibility/ Elongation at break</td>
<td>&gt; 250</td>
<td>&gt; 320</td>
<td>%</td>
<td>EN 12311-2</td>
</tr>
<tr>
<td>Resistance to static loading</td>
<td>&gt; 20</td>
<td>&gt; 20</td>
<td>Kg</td>
<td>EN 12730 (B)</td>
</tr>
<tr>
<td>Resistance to impact</td>
<td>&gt; 450</td>
<td>&gt; 900</td>
<td>mm</td>
<td>EN 12691 (A)</td>
</tr>
<tr>
<td>Resistance to tearing (nail Shank)</td>
<td>&gt; 300</td>
<td>&gt; 330</td>
<td>N</td>
<td>EN 12310-1</td>
</tr>
<tr>
<td>Reaction to Fire</td>
<td>E Class</td>
<td>E Class</td>
<td>-</td>
<td>EN 13501-1</td>
</tr>
<tr>
<td>Shear resistance of joints</td>
<td>&gt; 800</td>
<td>&gt; 750</td>
<td>N/50mm</td>
<td>EN 12317-2</td>
</tr>
<tr>
<td>Water vapor transmission properties</td>
<td>25500±7500</td>
<td>25500±7500</td>
<td>µ</td>
<td>EN 1931</td>
</tr>
<tr>
<td>Determination of peel resistance of joints</td>
<td>&gt; 150</td>
<td>&gt; 155</td>
<td>N/50 mm</td>
<td>EN 12316-2</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>%</td>
<td>EN 1107-2</td>
</tr>
<tr>
<td>Determination of foldability at low temperature</td>
<td>&lt; - 25</td>
<td>&lt; - 25</td>
<td>°C</td>
<td>EN 495-5</td>
</tr>
</tbody>
</table>

**Product Sizes:**

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Width</th>
<th>Length</th>
<th>Colour*</th>
<th>Roll m²</th>
<th>Roll Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2 mm</td>
<td>2 mt</td>
<td>25</td>
<td>Blue</td>
<td>50 m²</td>
<td>81 kg</td>
</tr>
<tr>
<td>1,5 mm</td>
<td>2 mt</td>
<td>20</td>
<td>Blue</td>
<td>40 m²</td>
<td>81 kg</td>
</tr>
<tr>
<td>1,8 mm</td>
<td>2 mt</td>
<td>20</td>
<td>Blue</td>
<td>40 m²</td>
<td>97 kg</td>
</tr>
<tr>
<td>2 mm</td>
<td>2 mt</td>
<td>15</td>
<td>Blue</td>
<td>30 m²</td>
<td>84 kg</td>
</tr>
</tbody>
</table>

*( ) Different colors available on demand
**PLAN LAKECAP - UV**

Homogenous PVC Lake Membrane UV resistant, vapor permeable, without reinforcement PVC Waterproofing Membranes have plant root resistance, they can be used for artificial lakes and dam applications and can be adhered with hot air welder.

**APPLICATION AREAS:**
- Construction of artificial lakes as Top layer.
- Construction of Garden pools and fish lakes.
- Construction of Decorative pools and lakes.

**APPLICATION ADVANTAGES:**
- High Quality meeting EN 13967 Quality Standards
- Vapor Permeable structure
- Plant Root Resistance
- UV Resistant
- Durable against atmosphere conditions
- Recyclable environment-friendly material that includes no heavy metals
- Homogenous product that has dissolution and decomposition resistances
- High flexibility value. Material which has dimensional stability
- Ability to maintain its flexibility in -25°C degrees temperature
- High tear resistance and impact strength
- Qualified and easy application options with heat air compressor
- Provides waterproofing in temperatures between -35 C and +85 C degrees

---

### Features

<table>
<thead>
<tr>
<th>Features</th>
<th>Minimum Required Value (EN)</th>
<th>Test Result</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination of watertightness</td>
<td>Impermeable</td>
<td>Impermeable</td>
<td>-</td>
<td>EN 1928 (B)</td>
</tr>
<tr>
<td>Determination of watertightness</td>
<td>Impermeable</td>
<td>Impermeable</td>
<td>-</td>
<td>EN 1296 vs EN 1309 (A)</td>
</tr>
<tr>
<td>Determination of visible defects</td>
<td>No defect</td>
<td>No defect</td>
<td>-</td>
<td>EN 1850-2</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>&gt; 15</td>
<td>&gt; 18</td>
<td>N/mm²</td>
<td>EN 12311-2</td>
</tr>
<tr>
<td>Flexibility/ Elongation at break</td>
<td>&gt; 250</td>
<td>&gt; 320</td>
<td>%</td>
<td>EN 12311-2</td>
</tr>
<tr>
<td>Resistance to static loading</td>
<td>&gt; 20</td>
<td>&gt; 20</td>
<td>Kg</td>
<td>EN 12730 (B)</td>
</tr>
<tr>
<td>Resistance to impact</td>
<td>&gt; 450</td>
<td>&gt; 900</td>
<td>mm</td>
<td>EN 12691 (A)</td>
</tr>
<tr>
<td>Resistance to tearing (nail shank)</td>
<td>&gt; 300</td>
<td>&gt; 330</td>
<td>N</td>
<td>EN 12310-1</td>
</tr>
<tr>
<td>Reaction to Fire</td>
<td>E Class</td>
<td>E Class</td>
<td>-</td>
<td>EN 13501-1</td>
</tr>
<tr>
<td>Shear resistance of joints</td>
<td>&gt; 600</td>
<td>&gt; 750</td>
<td>N/50mm</td>
<td>EN 12317-2</td>
</tr>
<tr>
<td>Water vapour transmission properties</td>
<td>25500±7500</td>
<td>25500±7500</td>
<td>µ</td>
<td>EN 1931</td>
</tr>
<tr>
<td>Determination of peel resistance</td>
<td>&gt; 750</td>
<td>&gt; 155</td>
<td>N/50mm</td>
<td>EN 12316-2</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>&lt; 2</td>
<td>&lt; 2</td>
<td>%</td>
<td>EN 1107-2</td>
</tr>
<tr>
<td>Determination of foldability at low temperature</td>
<td>&lt; - 25</td>
<td>&lt; - 25</td>
<td>°C</td>
<td>EN 495-5</td>
</tr>
</tbody>
</table>

### Product Sizes:

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Width</th>
<th>Length</th>
<th>Colour</th>
<th>Roll m²</th>
<th>Roll Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm</td>
<td>2 mt</td>
<td>20</td>
<td>Yellow</td>
<td>40 m²</td>
<td>81 kg</td>
</tr>
<tr>
<td>1.8 mm</td>
<td>2 mt</td>
<td>20</td>
<td>Yellow</td>
<td>40 m²</td>
<td>97 kg</td>
</tr>
<tr>
<td>2.0 mm</td>
<td>2 mt</td>
<td>15</td>
<td>Yellow</td>
<td>30 m²</td>
<td>84 kg</td>
</tr>
</tbody>
</table>

(*) Different colors available on demand
PLAN LAKECAP - UV PLUS

UV Resistant, Polyester Reinforced PVC Lake Membrane UV resistant, polyester reinforced and vapor permeable REINFORCED PVC Waterproofing Membranes have plant root resistance, they can be used for artificial lakes and dam applications and can be adhered with hot air welder.

APPLICATION AREAS:
- Used in dam applications
- Used in irrigation channels in agricultural lands
- Used as final layer while constituting artificial lakes
- Used for constituting Garden and fish artificial lakes.
- Used for constituting ornamental pools and decorative lakes.

APPLICATION ADVANTAGES:
- High Quality meeting EN 13956 Quality Standards
- Vapor Permeable structure
- Plant Root Resistance
- UV Resistant / Durable against atmosphere conditions
- Recyclable environment-friendly material that includes no heavy metal
- Polyester reinforced product that has dissolution and decomposition resistances.
- High flexibility value. Material which has dimensional stability
- Free layout usage feature by means of mechanically xing method
- Ability to maintain its flexibility in -25C degrees temperature
- High tear resistance and impact strength
- Qualified and easy application options with heat air welder
- Provides waterproofing in temperatures between -35C and +85C degrees

Features | Test Result | Unit |
--- | --- | --- |
Determination of visible defects | No defect | - |
Determination of watertightness | > 420 | kPa |
Resistance to root penetration | Feasible | - |
UV resistance (1000 h) | Resistant | |
Shear resistance of joints | > 850 | N/50 mm |
Resistance to static loading | > 25 | Kg |
Flexibility/elongation at break | > 25 | % |
Resistance to impact | 850 | mm |
Water vapour transmission properties | 25000±7500 | µ |
Resistance to tearing (nail shank) | > 220 | N |
Tensile strength | > 1100 | N/50 mm |
Determination of peel resistance of joints | > 300 | N/50 mm |
Determination of foldability at low temperature | < 25 | °C |
Dimensional Stability | < 1 | % |
Hail resistance | > 19 | m/s |

Product Sizes:

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Width</th>
<th>Length</th>
<th>Colour</th>
<th>Roll m²</th>
<th>Roll Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 mm</td>
<td>2.10 mt</td>
<td>20</td>
<td>Yellow</td>
<td>42 m²</td>
<td>87 kg</td>
</tr>
<tr>
<td>1.8 mm</td>
<td>2.10 mt</td>
<td>20</td>
<td>Yellow</td>
<td>42 m²</td>
<td>104.5 kg</td>
</tr>
<tr>
<td>2.0 mm</td>
<td>2.10 mt</td>
<td>15</td>
<td>Yellow</td>
<td>31.5 m²</td>
<td>89 kg</td>
</tr>
</tbody>
</table>

(*) Different colors available on demand
PLAN ROOFCAP - UV

UV Resistant, Polyester Reinforced PVC Roof Membrane UV resistant, polyester reinforced and vapor permeable REINFORCED PVC Waterproofing Membranes have plant root resistance, they can be used for roof waterproofing applications and can be adhered with heat air welder.

APPLICATION AREAS:
- Steel roofs and light metal roofs
- Garden terrace roofs
- Parking lot terrace roofs
- Concrete roofs and parapets

APPLICATION ADVANTAGES:
- High Quality meeting EN 13956 Quality Standards
- Vapor Permeable structure
- Plant Root Resistance
- UV Resistant / Durable against atmosphere conditions
- Recyclable environment-friendly material that includes no heavy metal
- Polyester reinforced product that has dissolution and decomposition resistances.
- High flexibility value. Material which has dimensional stability
- Free layout usage feature by means of mechanically xing method
- Ability to maintain its flexibility in -25°C degrees temperature
- High tear resistance and impact strength
- Qualified and easy application options with heat air welder
- Provides waterproofing in temperatures between -35°C and +85°C degrees

---

### Features

<table>
<thead>
<tr>
<th>Test</th>
<th>Minimum Required Value (EN)</th>
<th>Test Result</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination of visible defects</td>
<td>No defect</td>
<td>No defect</td>
<td>-</td>
<td>EN 1850-2</td>
</tr>
<tr>
<td>External fire exposure</td>
<td>B (Roof)</td>
<td>Feasible</td>
<td>-</td>
<td>EN 13501-5</td>
</tr>
<tr>
<td>Reaction to Fire</td>
<td>E Class</td>
<td>E Class</td>
<td>-</td>
<td>EN 13501-1</td>
</tr>
<tr>
<td>Determination of watertightness</td>
<td>&gt; 400</td>
<td>&gt; 420</td>
<td>KPa</td>
<td>EN 12988 (6)</td>
</tr>
<tr>
<td>Resistance to root penetration</td>
<td>Feasible</td>
<td>Feasible</td>
<td>-</td>
<td>EN 13948</td>
</tr>
<tr>
<td>UV resistance (1000 h)</td>
<td>Resistant</td>
<td>Resistant</td>
<td>-</td>
<td>EN 1297</td>
</tr>
<tr>
<td>Shear resistance of joints</td>
<td>&gt; 800</td>
<td>&gt; 800</td>
<td>N/50 mm</td>
<td>EN 12317-2</td>
</tr>
<tr>
<td>Resistance to static loading</td>
<td>&gt; 20</td>
<td>&gt; 25</td>
<td>Kg</td>
<td>EN 12370 (80)</td>
</tr>
<tr>
<td>Flexibility/ Elongation at break</td>
<td>&gt; 15</td>
<td>&gt; 25</td>
<td>%</td>
<td>EN 12311-2</td>
</tr>
<tr>
<td>Resistance to impact</td>
<td>&gt; 400</td>
<td>900</td>
<td>mm</td>
<td>EN 1298 (A)</td>
</tr>
<tr>
<td>Water vapour transmission properties</td>
<td>25000±7500</td>
<td>25000±7500</td>
<td>µ</td>
<td>EN 1931</td>
</tr>
<tr>
<td>Resistance to tearing (nail Shank)</td>
<td>&gt; 180</td>
<td>&gt; 220</td>
<td>N</td>
<td>EN 12310-2</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>&gt; 800</td>
<td>&gt; 1000</td>
<td>N/50 mm</td>
<td>EN 12311-2</td>
</tr>
<tr>
<td>Determination of peel resistance of joints</td>
<td>&gt; 200</td>
<td>&gt; 300</td>
<td>N/50 mm</td>
<td>EN 12316-2</td>
</tr>
<tr>
<td>Determination of frostability at low temperature</td>
<td>&lt; -25</td>
<td>&lt; -25</td>
<td>°C</td>
<td>EN 495-5</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>&lt; 1</td>
<td>&lt; 1</td>
<td>%</td>
<td>EN 1107-2</td>
</tr>
<tr>
<td>Nail resistance</td>
<td>&gt; 17</td>
<td>&gt; 19</td>
<td>m/a</td>
<td>EN 1107-2</td>
</tr>
</tbody>
</table>

### Product Sizes:

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Width</th>
<th>Length</th>
<th>Colour</th>
<th>Roll/M</th>
<th>Roll Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 mm</td>
<td>2,10 mt</td>
<td>25</td>
<td>Gray / Black</td>
<td>52,5 m²</td>
<td>87 kg</td>
</tr>
<tr>
<td>1.5 mm</td>
<td>2,10 mt</td>
<td>30</td>
<td>Gray / Black</td>
<td>62.5 m²</td>
<td>87 kg</td>
</tr>
<tr>
<td>1.8 mm</td>
<td>2,10 mt</td>
<td>20</td>
<td>Gray / Black</td>
<td>42 m²</td>
<td>104.5 kg</td>
</tr>
<tr>
<td>2.0 mm</td>
<td>2,10 mt</td>
<td>15</td>
<td>Gray / Black</td>
<td>31.5 m²</td>
<td>89 kg</td>
</tr>
</tbody>
</table>

( * ) Different colors available on demand
COMPLEMENTARY PRODUCTS
STANDART INSULATION

DRAINAGE BOARD

Made of high-density polyethylene, Stadren Drainage boards, with their dimpled structure, separate the building from soil thereby providing water drainage. Protects the heat and water-proofing materials on curtain walls from plant roots, various chemicals, and the mechanical effects of earth fill. In terrace Garden applications and on surfaces with no static load, the drainage boards are used as a substitute for lean concrete as they are very useful, functional, cost-saving as well as being environment-friendly.

Areas of usage
- Floors, basements and curtain walls
- Terrace Roof applications
- Parking Areas
- Tunnels
- Generally in all structures that must be protected from water and its consequential pressure

FEATURES
- Through convenient application, Stadren drainage boards help keep your building safe from water, soil, and the harmful effects of various chemicals.
**Sim Fix Polyurethane Sealant**

Sim Fix is a single component, moisture curing, polyurethane based sealant material.

Usage and application area
Is capable of adhesion to cementbased building materials, brick, ceramic, marble, glass, wood, galvanize steel, aluminum and most plastic surfaces. Used in construction industry, in the cavities of the joints between building elements. Used for joints and assembly of aluminum, PVC, wooden framing. Used for laying of roof tiles.

**FEATURES**
- One-component.
- Easy application with gun.
- Thixotropic.
- Cures with the humidity in the air.
- Paintable
- No volume change.
- Resistant to weather conditions and water.
- Permanent elasticity.
Plan PVC Complementary Products

Parapet Strainer Outlets
1- Round outlet parapets (Ø50 – Ø70 -Ø100)
As with all of our other products, parapet Strainers Show a precise and perfect combination with our insulation solutions and materials resulting in perfect waterproofing.

Strainers with vertical outlets
Product Description (Ø50 – Ø70-Ø100-Ø125 -Ø150)
Balcony and terrace Strainers with vertical downslopes are manufactured specially from single piece PVC. This piece, removes the possibility of water leaks at risky points.

Leaf holders
On sloped roofs into the PVC drain holes and on terrace roofs without ceramic or tiles or ventilation shafts, leaf holders are used to prevent large objects from blocking the pipes. Resistant to UV rays, climate conditions and chemical substances.

Application: The lower part of the leaf holder is pressed into the mouth of the drainage pipe to achieve a tight positioning.

Sizes: is available for use at all diameters between 50 and 150 mm.

Screws
We have 5 different screws: 1-Concrete screws 2-Trapeze screws 3-Panel screws 4-insulation screws 5-Wood Screws

Flashed Strainer Waterproofing Systems
System Parts
a) Body – Lower outlet – Side Outlet
b) Flange ring
c) Upper strainer body
d) Upper strainer grid
e) Odor Filter Piece

Usage:
The chosen strainer body is seated into the laying and mounted on the pipe. The ange ring is placed, the height of the strainer iter is adjusted and then the ange ring is fastened. The holes aside the upper strainer body are to drain the remaining water directly into the drainage pipes.

Roof Connection Elements.
Fixings
We have two types of Fixings. 1- Clawed Concave Fixings 2- Round Fixings

Flashing:
These aluminium materials are used in watertanks, parapets, curtain insulation, at the begin- ning and nishing of drainage boards and geomembranes; help xing downwards like a curta in and as well, help keeping wa ter away from seeping between the membrane and the Wall.

TWIN DRAINAGE SYSTEMS AND ACCESSORIES
Usage: On terraces, roofs and balconies, water, once inside, travels along the insulation layer down to the drainage pipe. The pooling water can not evaporate and continues its journey into deeper layers, consequently leading to dark spots due to moisture.

The twin drainage system is used to prevent these dark spots. The medium piece that connects to the lower drainage piece is made of polypropylene, seats perfectly into lower drainage piece and thanks to the 0.6 mm gaps, makes up another drainage helping the leaking water ow into the drainage pipes.

Ventilation Shafts
Ventilation Shafts help keeping the insulation layer dry by transferring out the moisture and vapor inside the structure and should be used at every 25-50 meters.
Bituminous Membranes Complementary Products

**Twin Loss System and Accessories**

It proceeds on the insulation layer until the points where discharge pipes are located after reaching the water insulation layer on terrace roofs and balconies. The water accumulating on this point proceeds towards lower layers as it does not evaporate and it causes the formation of damprelated black stains.

Twins loss system is used to prevent such stains. The connecting piece enabling connection to the lower loss part is made up of propylene. It fits to the lower loss part perfectly and makes the leaking water flow into discharge pipes by constituting a second loss line thanks to the 0.6mm gaps.

**Filters Vertical Outlets**

Product Introduction : (Ø50 - Ø70 - Ø100 - Ø125 - Ø150)

Vertical outlet and terrace outlet materials are produced as single parts from a special material called dutrel. This part removes the water leakage risk on potential points. They get into other water insulation materials especially bitumen water insulation covers.

Their lower surfaces are elastic and heat resistant. Thus, it enables a wonderful connection which you can combine with bitumen water insulation covers as well as other insulation covers in a perfect way. This connection has no leakage risks and it is never affected by thermal changes.

**Shingle VentilationShaft**

Membrane Ventilation Shaft h=32cm

Inclined Roof (Shingle) Ventilation Shaft: Shingle ventilation shafts are used if the roof insulation covers located on inclined roofs are shingle or slated. Usage number varies according to the roof bent.

Straight Model (Black - Red - Green)

Capped Model (Black - Red - Green)

Leaves Holders

It is used on inclined roofs for preventing leaves and similar objects from falling into PVC roof valleys. It is also used on terrace roofs and ventilation shafts on which ceramics or tiles have been paved for preventing leaves and similar objects (objects big enough to block the pipes) from falling into pipes. It is not affected by ultraviolet rays, climate conditions and chemical substances.

**Application:** Leaf holder is made to stay inside the discharge pipe by compressing and inserting it into the discharge pipe.

**Measure:** It is appropriate to be used for all diameters from 50 to 160 mm.

**Standart insulation PIns**

Used to fasten insulation materials on vertically sloped surfaces. Self adhesive Standart pins can only be used on smooth, plain, clean and dry surfaces. The sticky surface should not be touched. Metal surface or ambient temperature should be no more than 5 C. The expected adhesition comes 12 hours later. The amount to be used depends on density or weight of the material, temperature and the surface conditions. In many applications, depending on the surface and construction site conditions, 5 -9 pieces/ m² are generally sufficient.

**A-METAL POLYETHYLENE INSULATION PIN**

<table>
<thead>
<tr>
<th>STANDARD PIN</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 MM (4 CM)</td>
<td>500 Pcs</td>
</tr>
<tr>
<td>60 MM (6 CM)</td>
<td>500 Pcs</td>
</tr>
</tbody>
</table>

**B-PLASTIC BITUMEN INSULATION PIN**

<table>
<thead>
<tr>
<th>STANDARD PIN</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 MM (4 CM)</td>
<td>500 Pcs</td>
</tr>
<tr>
<td>60 MM (6 CM)</td>
<td>500 Pcs</td>
</tr>
</tbody>
</table>

**Flanged Waterproofing Systems**

**Expense**

* System Parts
  - a) Loss Body-Bottom Output-Side Output
  - b) Flange Ring
  - c) Upper filter body
  - d) Upper filter grid
  - e) Anti-odor connection part

**Use:** Chosen loss body is placed on the flooring and adapted into the PVC pipe. If sliding materials are to be used as insulation materials, the loss line will be integrated into concrete flooring thanks to the file you put under the body. Flange ring is fixed after it is located in its place and the height of the upper filter body to be placed on top is adjusted.

The gaps near upper filter body enable leaking water to go directly in to the discharge pipe. The channels on the outer surface of body have been designed in such a way that they can be cut off while adjusting the height and when necessary their height can be increased by inserting them into each other. Plastic and stainless grids we produce in 10-10cm and 15-15cm sizes give you a chance to make your choice.

Geotextile Fleece

Due to its high puncture resistance fleece protects materials from impacts, enables various working styles and prevents cement grout from leaking down.

Because it helps spread the pressure, it is used for waterproofing in building foundations. Protects the geomembranes applied on exposed surfaces against tearing and overfriction.

Especially in building foundations, foundation walls, curtilens, terraces, roofs, metro tunnels and roadway tunnels.

**Horizontal Outlet Strainers**

**Use:** Designed to complete the drainage pipes used in all horizontal outlet terraces and roof strainers and shares all the features with the vertical outlet version. It comes in 50 70 and 100 mm diameters.

**Vertical Outlet Strainers**

**Use:** The gaps near upper filter body enable leaking water to go directly in to the discharge pipe. The channels on the outer surface of body have been designed in such a way that they can be cut off while adjusting the height and when necessary their height can be increased by inserting them into each other. Plastic and stainless grids we produce in 10-10cm and 15-15cm sizes give you a chance to make your choice.

**Ventilation Shafts**

**Use:** Ventilation Shafts help keeping the insulation layer dry by transferring out the moisture and vapor inside the structure and should be used at every 25-50 meters in bituminous membra- fine applications.

**Parapet Filters**

We have two parapet output filter models.

1. Vertical Outlet Parapet (10 X 10cm square)

2. Round Outlet Parapet (Ø50 – Ø70 – Ø100) Trouble free impermeability can be achieved by maintaining a perfect harmony through the insulation materials and methods used as in our other products.

**Sliding Insulation Systems**

**Compatible Expense**

**System Parts**


b) Upper filter grid (1010, 1011, 2010)

c) Anti-odor connection part (1015)

Anti-odor connection part can be used only for side outputs.

**Apparatus Inner and Outer Corner**

These are the auxiliary materials facilitating the application on corner turns which constitute the risky areas in terrace water insulation application.

**Leaf Holders**

It is used on inclined roofs for preventing leaves and similar objects from falling into PVC roof valleys. It is also used on terrace roofs and ventilation shafts on which ceramics or tiles have been paved for preventing leaves and similar objects (objects big enough to block the pipes) from falling into pipes. It is not affected by ultraviolet rays, climate conditions and chemical substances.

**Application:** Leaf holder is made to stay inside the discharge pipe by compressing and inserting it into the discharge pipe.

**Measure:** It is appropriate to be used for all diameters from 50 to 160 mm.
**Board XPS** (Extrude Polystyrene Sheets)

- **Features**
  - Thermal insulation coefficient is compliant with the offered values.
  - Mechanical durability is ideal. (22-32 kg/m³)
  - With its high vapor diffusion resistance it does not require extra vapor barrier. $\mu=\mu$
  - E-B1 fire class
  - Produced to fit the density requirements of where it will be used (roof, Wall, flooring).
  - Edges are tongued and grooved.
  - Compliance with the building physics is stable.
  - The insulating abilities of 3 cm WALLBOARD equal to: 5 cm glass wool, 31 cm autoclaved concrete block, 63 cm aerated brick and 264 cm concrete.

**Panel Dimensions**
- **Dimension:** Width 60 X Length 125-300 mm
- **Thickness:** 2-3-4-5-6-7-8 cm

Some instances of installation are:
- Plain terraces and sloped roofs
- Under the balconies
- Unwarmed areas like garages and warehouses
- Plumbing pipes
- Ventilation channels

Considering the need for the energy in the cooling of the buildings is around 4 times as much as the energy needed for heating, the total energy consumption of Turkey can be reduced by 15-20%.
STANDART INSULATION

ROCK WOOL  Thermal, Sound and Fire Insulation

It is used for the purpose of heat, sound and water insulation in the roof terrace. It is an uncoated mineral plate. It is produced by melting and fibering of basalt totally native raw material under high temperatures. It can also be manufactured in the form of mattresses, bulk, sheet and pipe by using a coating material. Insulawool is the insulation material within the mineral wools and has high sound insulation properties besides its thermal insulation. Insulawool products can be used between -50 / +750C range. It is an A class inflammable material pursuant to TS EN 13501. It has dimensional stability and it does not change its measures under the effect of temperature and humidity. Mattress and sheet type products are produced in compatibility with TS 901-1 EN 13162 standard.

Areas of usage

Water Repellent Feature:
During production water repellency has been brought with silicone addition to terrace plates.

APPLICATION AREAS:
- Concrete or trapezoidal metal, flat or any kind of sloping roofs.
- Walking or not walking flat roofs

Usage Areas:
- Thermal insulation
- Sound insulation
- Fire protection

FEATURES
- Surface Coatings: It can be also produced with the following surfaces.
  - Aluminum folio
  - Fiberglass
- One side aluminum folio, other side with fiberglass or both side fiberglass
- Fire resistance: It is an A class inflammable material pursuant to TS EN 13501 because Insulawool's raw material is inorganic basalt rock. Melting point is 1000 C.
- Thermal conductivity: Thermal conductivity value of the products used in buildings should be according to TS 825 h=0,040 W/mK.
- It is produced in 2 different kinds; plain and one side fiberglass reinforced bituminous covered.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density (kg/m³)</td>
<td>150</td>
<td>Thickness (cm)</td>
<td>3 - 4 - 5</td>
</tr>
<tr>
<td>Dimension (cm) - (uncovered)</td>
<td>60x120</td>
<td>Dimension (cm) - (bituminous)</td>
<td>120x60</td>
</tr>
<tr>
<td>Compressive strength* (kg/m²)</td>
<td>3000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>