Guide to Waterproofing Sheet Membranes

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<th>NEW NAME</th>
<th>OLD NAME</th>
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<td>– ARDEX Pressure Seal</td>
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</tr>
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<td></td>
<td></td>
<td>– ARDEX Seam Primer</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>– ARDEX Butynol Sealant</td>
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</tbody>
</table>

The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product for a particular application. Users are asked to check that the literature in their possession is the latest issue.

* "Guide to waterproofing liquid applied membranes” available separately.
<table>
<thead>
<tr>
<th>SHEET MEMBRANES</th>
<th>NEW NAME</th>
<th>OLD NAME</th>
<th>TYPE</th>
<th>WEIGHT (GMS)</th>
<th>ROLLS PER PALLET</th>
<th>ROLL LENGTH (M)</th>
<th>ROLL WIDTH (M)</th>
<th>NORMAL EDGE LAP (MM)</th>
<th>NOMINAL THICKNESS/WEIGHT PER SQ M</th>
<th>SURFACE FINISH (TOP/BOTTOM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTYNOL ROOFING</td>
<td>ARDEX Butynol 1.0</td>
<td>Butynol Standard</td>
<td>Butyl Rubber</td>
<td>-</td>
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<td>n/a</td>
<td>n/a</td>
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<td>ARDEX Butynol 1.5</td>
<td>Butynol Medium</td>
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<td>-</td>
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<td>ARDEX Butynol 2.25</td>
<td>Butynol Heavy Duty</td>
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<td>-</td>
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<td>BASE SHEETS</td>
<td>ARDEX WPM 115</td>
<td>Vented Base Sheet</td>
<td>APP Bitumen</td>
<td>glass</td>
<td>60</td>
<td>33</td>
<td>20</td>
<td>1.0</td>
<td>butt joint</td>
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<td>ARDEX WPM 116</td>
<td>F/B Base Sheet</td>
<td>APP Bitumen</td>
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<td>150+50</td>
<td>28</td>
<td>10</td>
<td>1.05</td>
<td>50</td>
<td>2.7mm</td>
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<td>TORCH-ON MEMBRANES</td>
<td>ARDEX WPM 120</td>
<td>120 Membrane</td>
<td>APP Bitumen</td>
<td>Combined Poly/Glass</td>
<td>120</td>
<td>23</td>
<td>15</td>
<td>1.0</td>
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<td>2.5mm</td>
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<td>ARDEX WPM 160</td>
<td>3/150 Membrane</td>
<td>APP Bitumen</td>
<td>Combined Poly/Glass</td>
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<td>28</td>
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<td>75</td>
<td>3.0mm</td>
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<tr>
<td></td>
<td>ARDEX WPM 180</td>
<td>180 Membrane</td>
<td>APP Bitumen</td>
<td>Combined Poly/Glass</td>
<td>180</td>
<td>23</td>
<td>10</td>
<td>1.0</td>
<td>75</td>
<td>3.5mm</td>
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<tr>
<td></td>
<td>ARDEX WPM 185</td>
<td>Mineral Membrane</td>
<td>Poly</td>
<td>Combined Poly/Glass</td>
<td>180</td>
<td>20</td>
<td>10</td>
<td>1.0</td>
<td>75</td>
<td>4.5kg</td>
</tr>
<tr>
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<td>ARDEX WPM 186</td>
<td>Garden Membrane</td>
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<td>Combined Poly/Glass</td>
<td>180</td>
<td>23</td>
<td>10</td>
<td>1.0</td>
<td>75</td>
<td>3.5mm</td>
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<tr>
<td></td>
<td>ARDEX WPM 122</td>
<td>HD Bridge Membrane</td>
<td>APAO Bitumen</td>
<td>Combined Poly/Glass</td>
<td>300</td>
<td>16</td>
<td>10</td>
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<td>100</td>
<td>5.0mm</td>
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<td></td>
<td>ARDEX WPM 195</td>
<td>4mm APAO</td>
<td>APAO Bitumen</td>
<td>Combined Poly/Glass</td>
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<td>1.0</td>
<td>100</td>
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</tr>
<tr>
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<td>ARDEX WPM 196</td>
<td>4mm APAO Fleece Back</td>
<td>APAO Bitumen</td>
<td>Combined Poly/Glass</td>
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<td>4.0mm</td>
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<td>ARDEX WPM 197</td>
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<td>APAO Bitumen</td>
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<td>10</td>
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<td>100</td>
<td>5.4kg</td>
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<tr>
<td></td>
<td>ARDEX WPM 191</td>
<td>Fibrepol SBS</td>
<td>SBS</td>
<td>Poly</td>
<td>180</td>
<td>23</td>
<td>10</td>
<td>1.0</td>
<td>100</td>
<td>3.5</td>
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<tr>
<td>SELF ADHESIVE SBS SHEETS</td>
<td>ARDEX WPM 3000X</td>
<td>Shelterseal 3000</td>
<td>SBS</td>
<td>-</td>
<td>n/a</td>
<td>25</td>
<td>20</td>
<td>1.0</td>
<td>60mm</td>
<td>1.5</td>
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<tr>
<td></td>
<td>ARDEX WPM 5000HD</td>
<td>Shelterseal 5000HD</td>
<td>SBS</td>
<td>-</td>
<td>n/a</td>
<td>25</td>
<td>20</td>
<td>1.0</td>
<td>60mm</td>
<td>1.5</td>
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<tr>
<td>SHEET MEMBRANE ADHESIVES &amp; SOLVENTS</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Coverage</td>
<td>Dry Time</td>
<td>Clean Up</td>
<td></td>
<td></td>
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<tr>
<td>ARDEX WPM 240</td>
<td>Shelterbit Primer</td>
<td>Bitumen cut</td>
<td>5m²/L</td>
<td>1-2 hours</td>
<td>ARDEX WPM 290</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ARDEX WPM 249</td>
<td>Shelterseal Primer</td>
<td>Synthetic resins</td>
<td>5m²/L</td>
<td>2-4 hours</td>
<td>ARDEX WPM 290</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ARDEX WPM 245</td>
<td>F/B Base Adhesive</td>
<td>Synthetic resins</td>
<td>1.5</td>
<td>45 minutes</td>
<td>ARDEX WPM 290</td>
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<td>ARDEX WPM 290</td>
<td>WA Solvent</td>
<td>Hydrocarbon</td>
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<td>ARDEX WA 98</td>
<td>WA 98 Adhesive</td>
<td>Neoprene</td>
<td>2.25m²/L</td>
<td>Tack time – 30 minutes</td>
<td>ARDEX WPM 290</td>
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</table>
**PRODUCT WARRANTY**

All ARDEX membrane systems are covered by product warranties provided by ARDEX. The length of the Product Warranty provided will depend upon the specific waterproofing system used. Contact ARDEX for more information regarding Warranties. All ARDEX systems should be installed by an approved experienced applicator.

### ARDEX MODIFIED BITUMEN & SBS TORCH-ON MEMBRANES

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<tr>
<th>TECHNICAL PROPERTY</th>
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<th>APP MEMBRANE SHEETS</th>
<th>APAO MEMBRANE SHEETS</th>
<th>SPECIAL PURPOSE SHEETS</th>
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<tr>
<td><strong>Type</strong></td>
<td>APP</td>
<td>APP</td>
<td>APP</td>
<td>APP</td>
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<tr>
<td><strong>Reinforcement</strong></td>
<td>Fibreglass (60g/m²)</td>
<td>Fibreglass (50g/m²)</td>
<td>Fibreglass &amp; Polyester (120g/m²)</td>
<td>Fibreglass &amp; Polyester (120g/m²)</td>
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<tr>
<td><strong>Thickness/ weight</strong></td>
<td>0.8mm</td>
<td>2.7mm</td>
<td>2.5mm</td>
<td>3.0mm</td>
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<tr>
<td><strong>Top Surface</strong></td>
<td>Torch Film</td>
<td>Torch Film</td>
<td>Sand</td>
<td>Sand</td>
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<tr>
<td><strong>Bottom Surface</strong></td>
<td>Torch Film</td>
<td>Polyester fleece (150g/m²)</td>
<td>Torch Film</td>
<td>Torch Film</td>
</tr>
<tr>
<td><strong>Tear Resistance (longitudinal)</strong></td>
<td>70 N</td>
<td>100 N</td>
<td>120 N</td>
<td>130 N</td>
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<tr>
<td><strong>Elongation (longitudinal)</strong></td>
<td>–</td>
<td>60%</td>
<td>35%</td>
<td>45%</td>
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<tr>
<td><strong>Heat Stability</strong></td>
<td>110°C</td>
<td>110°C</td>
<td>110°C</td>
<td>110°C</td>
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<tr>
<td><strong>Cold Flexibility</strong></td>
<td>– 5°C</td>
<td>– 5°C</td>
<td>– 5°C</td>
<td>– 5°C</td>
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<tr>
<td><strong>Roll Size</strong></td>
<td>1x20m</td>
<td>1x10m</td>
<td>1x15m</td>
<td>1x10m</td>
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<tr>
<td><strong>Roll Weight (approx.)</strong></td>
<td>20kg</td>
<td>30kg</td>
<td>43.5kg</td>
<td>35kg</td>
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</table>
ARDEX Torch Applied Membrane
(Shelterbit Sheet Membranes)

APP Bitumen & SBS Sheet Membranes

The Sheet Membrane range of waterproofing products incorporates bituminous sheet membranes for a wide variety of roofing and tanking situations. The range comprises both APP, APAO and SBS torch applied products. Details for each product are contained in the individual Product Data Sheet.

PRODUCTS

ARDEX WPM 115
0.8mm APP Bitumen Vented Base Sheet
(Shelterbit Vented Base Sheet)
A fibreglass reinforced polymer APP modified bituminous membrane perforated with 40mm diameter holes. The sheet is covered with heat sensitive polythene film on both sides and is used as a base layer to allow dispersion of vapour in exposed bitumen sheet waterproofing systems.

ARDEX WPM 116
2.7mm APP Bitumen Fibre backed base sheet
(Shelterbit Fibre-backed Base Sheet)
A polyester backed fibreglass reinforced modified bituminous membrane normally installed as a base layer in multi-layer Shelterbit systems. ARDEX WPM 116 (Shelterbit fibre-backed base sheet) has been specially designed for application to heat sensitive substrates such as timber or thermal insulation. It is also ideally suited for use as a base layer on rough or uneven surfaces, over sound existing membranes such as rubber, PVC, bitumen, acrylic and polyurethane or over insulation. It can be loose laid, mechanically fastened, adhered with Shelter adhesives or laid in hot-melt bitumen using the hot roll and pour method.

ARDEX WPM 120
2.5mm Combined reinforced APP Bitumen Membrane
(Shelterbit 120 Membrane)
A 2.5mm (nominal) thick combined reinforced (polyester & fibreglass) APP modified bituminous torch applied membrane. It is used as a base or mid layer in a multi-layer bituminous membrane system.

ARDEX WPM 150
3.0mm Combined reinforced APP Bitumen Membrane
A 3.0mm (nominal) thick combined reinforced (polyester & fibreglass) APP modified bituminous torch applied membrane. It is used as a base or mid layer in a multi-layer bituminous membrane system.

ARDEX WPM 180
3.5mm Combined reinforced APP Bitumen Membrane
(Shelterbit 180 Membrane)
A 3.5mm (nominal) thick combined reinforced (polyester & fibreglass) APP modified bituminous torch applied membrane. It is used as a single layer tanking membrane for horizontal or vertical applications, and may also be used in a multi-layer membrane system.

ARDEX WPM 185
4.5kg/m² Mineral Coated APP Bitumen Membrane
(Shelterbit Mineral Membrane)
A 4.0mm (nominal) thick combined reinforced (polyester & fibreglass) APP modified bituminous torch applied membrane with a mineral slate finish. Designed as a cap layer in exposed membrane systems. Available in grey, green and white.

ARDEX WPM 186
3.5mm Garden APP Bitumen Membrane
(Shelterbit Garden Membrane)
A 3.5mm (nominal) thick combined reinforced (polyester & fibreglass) APP modified bituminous torch applied membrane formulated with root inhibitors to prevent damage from plant roots. ARDEX WPM 186 has been purpose designed for waterproofing landscape and planter box areas, and can be used in single or multi-layer systems.

ARDEX WPM 122
5.0mm Heavy Duty Bridge & Deck APP Bitumen Membrane
(Shelterbit HD Bridge Membrane)
A heavy duty 5.0mm (nominal) thick non-woven polyester reinforced APP modified bituminous membrane designed for use on bridges and car parks. The heavy duty polyester reinforcement (300g/m²) allows hot road base to be applied directly to the installed membrane.

ARDEX WPM 125
4.0mm APAO Bitumen Fibre backed base sheet
(Shelterbit HD Bridge Membrane)
Providing all the properties of ARDEX WPM 126, ARDEX WPM 125 is backed with a polyester fibre. ARDEX WPM 125 has been specially designed for application to heat sensitive substrates such as timber or thermal insulation, moisture containing substrates and over sound existing membranes such as rubber, PVC, bitumen, acrylic and polyurethane.

ARDEX WPM 126
4.0mm Combined reinforced APAO Bitumen Membrane
A 4.0mm (nominal) thick premium combined reinforced (polyester & fibreglass) APAO modified bituminous torch applied membrane providing the properties of APP while at the same time providing the low temperature resistant properties normally attributed to SBS. ARDEX WPM 126 has a service temperature tolerance of between −35°C and 140°C.

ARDEX WPM 127
4.5kg/m² Mineral Coated APAO Bitumen Membrane
Providing all the properties of ARDEX WPM 126, ARDEX WPM 127 also contains slate chips fused into the upper surface for protection in exposed applications.

ARDEX WPM 191
3.5mm SBS Bitumen Membrane
(Shelterbit SBS Cold Climate Membrane)
A 3.5mm (nominal) thick combined reinforced (polyester & fibreglass) SBS rubber modified bituminous membrane. Used in single or multi-layer systems in horizontal or vertical tanking applications. ARDEX WPM 191 is ideal for use in cooler climates because of its ease of workability.
This recommendation has been prepared for the general installation of an ARDEX Torch Applied Membrane System. Each project can have its own special conditions and idiosyncrasies that may require special conditions and/or processes of installation. Confirmation of the suitability for this recommendation in relation to any project should be sought from the ARDEX Representative prior to specifying.

The application of ARDEX torch applied membranes should be carried out by an Approved Installer of ARDEX waterproofing membranes. Installation shall be strictly in accordance with the Manufacturer’s recommendations. All materials used in conjunction with the ARDEX Torch Applied Membrane Systems must be approved by ARDEX.

STORAGE AND HANDLING
Rolls of membrane delivered to the site are to be stored in a covered area or be covered with a protective sheet until required for installation. Rolls are to be stored vertically taking care to prevent damage to the ends. Rolls are not to be dropped or mishandled.

SURFACE PREPARATION
Surfaces to which the ARDEX Torch Applied Membrane Systems are installed must be properly prepared prior to installation. All surfaces must be clean, dry, smooth, free of sharp edges, fines, loose or foreign materials, oil, grease and other materials which may damage the membrane. Concrete must be 28 days old, screeds must be 7 days and substrate must be dry.

Sand/cement fillets are recommended at all change in direction of substrate (from horizontal to vertical). Plywood substrates should be structurally sound, fixed with 3mm gaps between all sheets, and countersunk screws fixed to plywood manufacturer’s specifications. **Staples and nails are not suitable under any circumstances.** Wooden substrates with right angled internal corners should have a timber triangular fillet 50mm x 50mm screwed to each corner. External corners should be rounded to reduce wear on edges and allow an improved finish.

Commencement of laying shall be taken as acceptance of the substrate by the Applicator.

PRIMING
Prior to the application of ARDEX Torch Applied Membranes, all prepared surfaces shall be primed with ARDEX WPM 240 primer at a rate of 5-6m² per litre and allowed to dry.

Coverage of primer may vary depending on the density or porosity of the substrate. Primer may be applied by brush, roller or spray equipment. Coverage must be uniform.

Note that priming is not required for the installation of ARDEX WPM 116 or WPM 125 Base Sheets.

MEMBRANE SYSTEM COMBINATION
ARDEX Torch Applied Membranes can be used in various combinations, refer to ARDEX Torch Applied Membrane System Recommendation in this section for your individual waterproofing requirement.

TESTING
After installation, it is recommended, where possible, a water test be carried out for 24 hours.

PROTECTION
An ARDEX protection board must be used prior to backfilling or when topping is required.

SAFETY PRECAUTIONS
ARDEX Torch Applied Membranes are non-dangerous goods. However, during installation, exercise extreme caution when working with open flame.

Do not use open flame directly on highly combustible material. Follow all local fire codes.
ARDEX Torch Applied waterproofing membranes can be used in a wide variety of combinations to suit the requirements of a specific waterproofing application. The following table outlines most of the acceptable alternatives for a range of common situations encountered. Please consult with your local ARDEX representative to select the most appropriate solution.

### TORCH APPLIED SYSTEMS

#### Systems for concrete or topping substrates:

<table>
<thead>
<tr>
<th>Spec. No.</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SINGLE LAYER NON EXPOSED SYSTEMS</strong></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>One layer of ARDEX WPM 120 (Shelterbit 120)</td>
</tr>
<tr>
<td>02</td>
<td>One layer of ARDEX WPM 180 (Shelterbit 180) OR</td>
</tr>
<tr>
<td>03</td>
<td>One layer of ARDEX WPM 191 (Shelterbit SBS Cold Climate Membrane)</td>
</tr>
<tr>
<td><strong>TWO LAYER NON EXPOSED SYSTEMS</strong></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>1st layer of ARDEX WPM 120 (Shelterbit 120) 2nd layer of ARDEX WPM 180 (Shelterbit 180) OR</td>
</tr>
<tr>
<td>05</td>
<td>1st layer of ARDEX WPM 191 (Shelterbit SBS Cold Climate Membrane) 2nd layer of ARDEX WPM 191 (Shelterbit SBS Cold Climate Membrane)</td>
</tr>
<tr>
<td><strong>THREE LAYER NON EXPOSED SYSTEM</strong></td>
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</tr>
<tr>
<td>06</td>
<td>1st layer ARDEX WPM 120 (Shelterbit 120) 2nd layer ARDEX WPM 120 (Shelterbit 120) 3rd layer ARDEX WPM 180 (Shelterbit 180)</td>
</tr>
<tr>
<td><strong>TWO LAYER EXPOSED SYSTEMS</strong></td>
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</tr>
<tr>
<td>07</td>
<td>1st layer of ARDEX WPM 120 (Shelterbit 120) 2nd layer of ARDEX WPM 185 (Shelterbit with Slate Mineral chip) OR</td>
</tr>
<tr>
<td>08</td>
<td>1st layer ARDEX WPM 180 (Shelterbit 180) 2nd layer ARDEX WPM 185 (Shelterbit with Slate Mineral chip)</td>
</tr>
<tr>
<td><strong>TWO LAYER VENTED EXPOSED SYSTEMS</strong></td>
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</tr>
<tr>
<td>09</td>
<td>1st layer ARDEX WPM 116 (Shelterbit Fibre Backed Base sheet) (glued in) 2nd layer ARDEX WPM 185 (Shelterbit with Slate Mineral chip) OR</td>
</tr>
<tr>
<td>10</td>
<td>1st layer ARDEX WPM 115 (Shelterbit Vented Base sheet) 2nd layer ARDEX WPM 185 (Shelterbit with Slate Mineral chip) OR</td>
</tr>
<tr>
<td><strong>THREE LAYER VENTED EXPOSED SYSTEMS</strong></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1st layer ARDEX WPM 115 (Shelterbit Vented Base Sheet) 2nd layer ARDEX WPM 180 (Shelterbit 180) 3rd layer ARDEX WPM 185 (Shelterbit with Slate Mineral chip) OR</td>
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#### Systems for timber or other non-torchable substrates:

<table>
<thead>
<tr>
<th>Spec. No.</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TWO LAYER NON EXPOSED SYSTEM</strong></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>1st layer ARDEX WPM 116 (Shelterbit Fibre Backed Base sheet) (glued in) 2nd layer ARDEX WPM 180 (Shelterbit 180)</td>
</tr>
<tr>
<td><strong>TWO LAYER EXPOSED SYSTEM</strong></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>1st layer ARDEX WPM 116 (Shelterbit Fibre Backed Base sheet) (glued in) 2nd layer ARDEX WPM 185 (Shelterbit with Slate Mineral chip)</td>
</tr>
<tr>
<td><strong>THREE LAYER EXPOSED SYSTEM</strong></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>1st layer ARDEX WPM 116 (Shelterbit Fibre Backed Base sheet) (glued in) 2nd layer ARDEX WPM 120 (Shelterbit 120) 3rd layer ARDEX WPM 185 (Shelterbit with Slate Mineral chip)</td>
</tr>
</tbody>
</table>

#### Systems for application over insulation:

<table>
<thead>
<tr>
<th>Spec. No.</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>1st layer ARDEX WPM 116 (Shelterbit Fibre Backed Base sheet) (mechanically fixed) 2nd ARDEX WPM 185 (Shelterbit with Slate Mineral chip)</td>
</tr>
<tr>
<td>20</td>
<td>1st ARDEX WPM 116 (Shelterbit Fibre Backed Base sheet) (mechanically fixed) 2nd ARDEX WPM 120 (Shelterbit 120) 3rd ARDEX WPM 185 (Shelterbit with Slate Mineral chip)</td>
</tr>
</tbody>
</table>
Installation Details

SHEET LAYOUT
Application Details Two Plies System
Staggered Layout for Finish Membrane
1 – First layer
2 – Second layer
3 – Third layer

TYPICAL TURN UP DETAILS – EXPOSED MEMBRANE

TYPICAL TURN UP DETAILS – NON-EXPOSED MEMBRANE

PRESSURE SEAL FLASHING
ARDEX Torch Applied Membrane
Installation Details

**CUT IN FLASHING**
- Cap Layer Cut into Wall
- Cap Layer Sheet
- Base Layer Sheet

**LIQUID MEMBRANE FLASHING**
- ARDEX WPM 330 or ARDEX WPM 310 Facade Coating
- ARDEX WPM 320 with Deckweb reinforcement
- Bitumen Sheet Membrane System
- Coving

**CAPPING DETAIL**
- Metal Capping Membrane
- Sand Cement Fillet
- Concrete

**CONSTRUCTION JOINT**
- ARDEX Torch Applied Membrane top layer fully bonded except over 250mm strip
- Concrete Slab
- 250mm ARDEX Torch Applied Membrane strip stuck to one side of the joint only

**EXPANSION JOINT**
- ARDEX Torch Applied Membrane top layer fully bonded except over 330mm underflashing
- Concrete Slab
- Expansion Joint
- 330mm ARDEX Torch Applied Membrane underflashing fully bonded each side of joint

**ALTERNATE EXPANSION JOINT**
- Capping
- Sealant
- Bituminous Fibreboard
- Sand Cement Fillet
- Ballast Slipsheet
- Insulation Membrane
- Primer Screed
- Concrete

**GARDEN BED/PLANTER BOX DETAIL**
- ARDEX WPM 330 or ARDEX WPM 310 Facade Coating
- See Liquid Flashing Detail
- ARDEX Protection Board
- ARDEX WPM 186 Garden Membrane
- Drainage Cell
- Coving
MECHANICAL FIXING OVER FOAM
2 LAYER SYSTEM

ARDEX WPM 180/185
ARDEX WPM 116
Fleece Base Sheet
Overlapping ARDEX WPM 116 Fibre Base Sheet
Mechanical Fixing
Foam Insulation

TYPICAL OUTLET DETAIL

Grate
Membrane
Membrane under flashing
Outlet Insert
Concrete

MECHANICAL FIXING OVER FOAM
3 LAYER SYSTEM

ARDEX WPM 180/185
ARDEX WPM 120
Overlapping ARDEX WPM 116 Fibre Base Sheet
Mechanical Fixing
Foam Insulation

ROOF EDGE – MECHANICALLY FIXED

Metal Fixing
Metal Capping
Fillet
Substrate

ARDEX Torch Applied Membrane Base Sheet torched to Substrate

ROOF EDGE ON LOAD BEARING WALL

Metal Flashing (optional)
Mastic/Sealant
Chase
Fillet
Torched to Base Sheet
Substrate
ARDEX Torch Applied Membrane Base Sheet
ARDEX Torch Applied Membrane
Installation Details

OUTSIDE CORNER

ONE WAY VENT INSTALLATION

STEP 1 Vent Base Sheet
STEP 2 Fillet Substrate

Base Sheet
Fillet
ARDEX Torch Applied Membrane Base Sheet torched to Substrate
Substrate

Mineral Cap Sheet
One Way Roof Vent
Vented Base Sheet

Mineral Cap Sheet
Vented Base Sheet
Sealant

One Way Roof Vent

PIECE FLASHING

Flashing prior to installation
Parallel Cuts Pipe

ARDEX Torch Applied Membrane flashing torched in place.
Top ARDEX Torch Applied Membrane sheet cut to fit around pipe
Substrate

ARDEX Torch Applied Membrane Base Sheet torched to Substrate

ARDEX Torch Applied Membrane flashing torched in place.
Top ARDEX Torch Applied Membrane sheet cut to fit around pipe
ARDEX Torch Applied Membrane Base Sheet torched to Substrate

Aerators
Vapour Membranes
Vapour Equalisation Layer
Partial Bonding through Porous Concrete Decking
Porous Concrete Decking
Vent Sheet
**SKYLIGHT FLASHING**

- Cover flashing extends under skylight moulding
- ARDEX Torch Applied Membrane base sheet torched to substrate

**IRMA ROOF OVERFLOW**

- Wall or Parapet
- Metal Flashing
- Gravel Retainer
- Dress Membrane into Overflow Pipe

**IRMA ROOF OUTLET & GRAVEL RETAINER**

- Grate
- Ballast
- Screed
- Filter Fabric
- Insulation
- Ballast
- Filter Fabric
- Insulation
- Membrane

**TYPICAL IRMA ROOF DETAIL**

- Sealant
- Pressure Seal Flashing
- Sand/Cement Fillet
- Ballast
- Filter Fabric
- Insulation
- Membrane
- Primer

- Concrete

**Cavity Flashing**

- Weep Holes
- Ballast
- Filter Fabric
- Insulation
- Membrane as specified

- Concrete

*July 2007*
Important Note:
Drainage core should always be positioned lower than the horizontal membrane
ARDEX WPM 115
(Sherterbit Vented Base Sheet)

0.8mm APP Bitumen Vented Base Sheet

Specially designed perforated base sheet for use in a multi-layer waterproofing system

Eliminates bubbles and blisters forming underneath the waterproofing layer
ARDEX WPM 115
(Sherbertbit Vented Base Sheet)
0.8mm APP Bitumen Vented Base Sheet

PRODUCT DESCRIPTION
ARDEX WPM 115 (Shelterbit Vented Base Sheet) is an A.P.P (Atactic Polypropylene Plastomer) type modified bitumen membrane vented base sheet, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers.

A protective heat sensitive polythene film covers both surfaces of the vented Base Sheet.

FEATURES AND BENEFITS
ARDEX WPM 115:
- Is a specially designed perforated base-sheet for use in a multi-layer waterproofing system.
- Virtually eliminates bubbles and blisters forming underneath the waterproofing layer.
- Allows vapour permeating through the deck to diffuse underneath the waterproofing where, ideally, aerators will be installed to allow the vapour to escape to atmosphere.
- Eliminates the creation of stresses in the waterproofing layers thus greatly reducing failures in the waterproofing caused by deck movements.
- Is the ideal solution for controlled, partially attached first layer in a multi-layer system.

SAFETY PRECAUTIONS
ARDEX WPM 115 is hazardous; non-dangerous goods. However during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.

Do not use open flame on or near highly combustible materials. Follow all local fire codes.

INSTALLATION
The application of ARDEX Torch Applied Membranes should be carried out by an accredited applicator.

Installation shall be strictly in accordance with the manufacturer's recommendations.

Acceptable substrates to which ARDEX Torch Applied Membranes is to be installed must be properly prepared prior to membrane installation.

ARDEX Torch Applied Membranes may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.

The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specification from ARDEX.

STORAGE
All rolls of ARDEX Torch Applied Membranes should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

PACKAGING
Roll size: 1m x 20m
Roll weight: Approximately 20kg
Rolls per pallet: 25
TECHNICAL DATA

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 115.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>UNI EN 1848-1</td>
<td>m</td>
<td>20</td>
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<td>Width</td>
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<td>m</td>
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<td>Thickness</td>
<td>UNI EN 1849-1</td>
<td>mm</td>
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<td>Hole Diam.</td>
<td>mm</td>
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<td>40</td>
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<tr>
<td>Number of Holes</td>
<td>per m²</td>
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<td>119</td>
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<tr>
<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>110</td>
</tr>
<tr>
<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−5</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>UNI EN 12311-1</td>
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</tr>
<tr>
<td>Ultimate Longitudinal</td>
<td>N/5cm</td>
<td>310</td>
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<tr>
<td>Ultimate Transverse</td>
<td>N/5cm</td>
<td>205</td>
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<tr>
<td>Elongation at Break</td>
<td>UNI EN 12311-1</td>
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<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>%</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>%</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Tear resistance</td>
<td>UNI EN 12310-1</td>
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<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>N</td>
<td>70</td>
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<tr>
<td>Transverse</td>
<td>N</td>
<td>80</td>
<td></td>
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<tr>
<td>Reinforcement</td>
<td>Glass Fibre</td>
<td>g.s.m.</td>
<td>60</td>
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<tr>
<td>Surface finishes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower¹</td>
<td>torch film</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top²</td>
<td>torch film</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

All tests have been carried out to UEATC, to tolerances as per European Directive.
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ARDEX WPM 116
(Sherbert Fibre Back Base Sheet)

2.7mm APP Bitumen Fibre Backed Base Sheet

Excellent elongation – 60% at break

Cold Flexibility to -5°C

Excellent resistance to pollutants
PRODUCT DESCRIPTION

ARDEX WPM 116 (Shelterbit F.B. Base Sheet) is an A.P.P. (Atactic Polypropylene Plastomeric) type modified bitumen membrane slip or base sheet, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers. The product is reinforced with a combination of fibreglass and non-woven polyester.

ARDEX WPM 116 top surface is embossed and protected by a heat sensitive polythene film. This type of finish for the top surface has been chosen for two specific purposes.

1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.

2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering, due to gases being trapped between the slip or base sheet and the membrane subsequently applied on top.

The lower surface of the slip or base sheet is an uncoated non-woven polyester matt.

PHYSICAL AND CHEMICAL PROPERTIES

A.P.P. modified compound

- Excellent elongation
- Cold flexibility -5˚C
- Excellent resistance to pollutants
- Good elastic memory
- Good mechanical characteristics
- Good dimensional stability
- Good puncture resistance
- Will not decay
- Good elongation

USES

ARDEX WPM 116 is always installed as a base sheet in multi-layer systems either loose laid mechanically fastened (using large headed roofing fasteners under overlap area) or fully adhered with ARDEX WPM 245 Adhesive (Shelterbit Fibre Back Adhesive).

ARDEX WPM 116 has been specifically designed for applications to heat sensitive substrates such as wooden decks or thermal insulation.

Also can be installed as a base-layer on rough or un-even concrete decks.

Overlaps are not normally torched sealed unless ARDEX WPM 116 is to be used as a vapour control layer or as a secondary-waterproofing layer.

INSTALLATION

The application of ARDEX WPM 116 should be carried out by an accredited applicator.

Installation shall be strictly in accordance with the manufacturer's recommendations.

Acceptable substrates to which ARDEX WPM 116 is to be installed must be properly prepared prior to membrane installation.

ARDEX WPM 116 may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.

The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specifications from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS

ARDEX WPM 116 is hazardous; non-dangerous goods.

During installation, exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.

Do not use open flame on or near highly combustible materials such as wet adhesive. Follow all local fire codes.

STORAGE

All rolls of ARDEX WPM 116 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.
PACKAGING

Roll size: 1.05m x 10m (Fleece is 1.0m wide leaving 50mm selvedge for lap bonding).
Roll weight: Approximately 30kg.
Rolls per pallet: 30

TECHNICAL DATA

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 116.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
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</thead>
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<td>10</td>
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<td>Thickness</td>
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<td>UNI EN 1849-1</td>
<td>kg/m²</td>
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<tr>
<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>110</td>
</tr>
<tr>
<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−5</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>UNI EN 12311-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultimate Longitudinal</td>
<td>N/5cm</td>
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<tr>
<td>Ultimate Transverse</td>
<td>N/5cm</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>UNI EN 12311-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>%</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>%</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Tear resistance</td>
<td>UNI EN 12310-1</td>
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<td></td>
</tr>
<tr>
<td>Longitudinal</td>
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<td>Transverse</td>
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<td>100</td>
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<tr>
<td>Reinforcement</td>
<td>Glass Fibre</td>
<td>g.s.m.</td>
<td>50</td>
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<td>Surface finishes</td>
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<td>polyester</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top²</td>
<td>torch film</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

All tests have been carried out to UEATC, to tolerances as per European Directive.
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ARDEX WPM 120
(Shelterbit 120 Membrane)

2.5mm Combined Reinforced APP Bitumen
ARDEX WPM 120
(Shelterbit 120 Membrane)
2.5mm Combined Reinforced APP Bitumen

PRODUCT DESCRIPTION
ARDEX WPM 120 (Shelterbit Fibrepol 120) is an A.P.P. (Atactic Polypropylene Plastomeric) type modified bitumen membrane, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers and reinforced with a combined reinforcement carrier.

ARDEX WPM 120 is coated with either a sanded or talc top surface finish, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.

1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.
2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering.

FEATURES AND BENEFITS
A.P.P. modified compound
• Excellent cold flexibility to -5˚C
• Excellent elongation
• Heat welded laps provide homogenous joint
• Prefabricated membrane
• Good elastic memory

Combined reinforcement carrier
• High mechanical characteristics
• High puncture resistance
• Will not decay

USES
ARDEX WPM 120 is used as a base and or mid layer in multi-layer tanking membrane systems in horizontal or vertical applications, also for waterproofing balconies, terraces and roofs. ARDEX WPM 120 membrane is a sandwich membrane and must be protected from UV.

INSTALLATION
The application of ARDEX WPM 120 should be carried out by an accredited applicator.

Installation shall be strictly in accordance with the manufacturer’s recommendations.

Acceptable substrates to which ARDEX WPM 120 is installed must be properly prepared prior to membranes installation.

All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.

Prior to the application of ARDEX WPM 120 the base substrate surfaces should be primed with ARDEX WPM 240 (Shelterbit primer). Coverage of primer will depend on the porosity of the substrate.

ARDEX WPM 120 is normally fully bonded to the prepared substrate with side laps of 100mm and end laps of 150mm.

Overlaps shall be sealed by torch.

ARDEX WPM 120 may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.

The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specifications from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS
ARDEX WPM 120 is hazardous; non-dangerous goods.

However during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.

Do not use open flame on or near highly combustible materials. Follow all local fire codes.

STORAGE
All rolls of ARDEX WPM 120 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

PACKAGING
Roll size: 1m x 15m
Roll weight: 43.5kg
Rolls per pallet: 23
**TECHNICAL DATA**

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 120 Waterproofing Membrane.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
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<td>Thickness</td>
<td>UNI EN 1849-1</td>
<td>mm</td>
<td>2.5</td>
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<td>Aeric Mass</td>
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<td>kg/m²</td>
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<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>110</td>
</tr>
<tr>
<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−5</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>UNI EN 12311-1</td>
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<td></td>
</tr>
<tr>
<td>Ultimate Longitudinal</td>
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<tr>
<td>Ultimate Transverse</td>
<td>N/5cm</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>UNI EN 12311-1</td>
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<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>%</td>
<td>35</td>
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</tr>
<tr>
<td>Transverse</td>
<td>%</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Tear resistance</td>
<td>UNI EN 12310-1</td>
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<td></td>
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<tr>
<td>Longitudinal</td>
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<td>Transverse</td>
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<td>120</td>
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<tr>
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<td>g.s.m.</td>
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</tr>
<tr>
<td></td>
<td>Top²</td>
<td>sand</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

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ARDEX WPM 122
(Sherberbit HD Bridge Membrane)

5.0mm Bridge & Deck APP Bitumen Membrane

Excellent cold flexibility -10°C

Resistance to aggressive chemicals

High puncture resistance

Used for bridge decks, car parks, road ways and viaducts
PRODUCT DESCRIPTION
ARDEX WPM 122 is an A.P.P. (Atactic Polypropylene Plastomer) type modified bitumen membrane, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers and reinforced with a high quality non-woven 300g polyester carrier. ARDEX WPM 122 is coated with either a sanded or talc top surface finish, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.
1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.
2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering.

FEATURES AND BENEFITS
A.P.P. modified compound
• Excellent cold flexibility -10˚C
• Excellent elongation
• Heat welded laps provide a homogenous joint
• Prefabricated membrane
• Good elastic memory
• Resistance to aggressive chemicals

Heavyweight non-woven polyester
• High mechanical characteristics
• High puncture resistance
• Good elongation
• Will not decay

USES
ARDEX WPM 122 has been specifically engineered using a heavy weight non-woven carrier for heavy-duty applications, particularly as a membrane under hot melt asphalt or bitumen.
Typical uses are:
• Bridge decks
• Car parks
• Road-ways
• Viaducts

ARDEX WPM 122 is a sandwich membrane and must be protected from UV radiation.

INSTALLATION
The application of ARDEX WPM 122 should be carried out by an accredited applicator.
Installation shall be strictly in accordance with the manufacturer's recommendations.
Acceptable substrates to which ARDEX WPM 122 systems are installed must be properly prepared prior to membrane installation.
All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.
Prior to the application of ARDEX WPM 122 the surface should be primed with ARDEX WPM 240 (Shelterbit primer). Coverage of primer will depend on the porosity of the substrate.
ARDEX WPM 122 is fully bonded to the prepared substrate with side laps of 10cm and end laps of 15cm. Overlaps shall be sealed by torch.
ARDEX WPM 122 is used as a single layer membrane system which is normally installed prior to the installation of toppings, road base or hot melt asphalt or bitumen.
Application of toppings may be applied on completion. Road base may be installed directly to the membrane without an extra protection layer.
The asphalt should be applied as soon as possible after the ARDEX WPM 122 membrane has been installed.
ARDEX recommend applying a minimum 50mm compacted overlay for carpark areas. The topping should be applied in two layers at a temperature of between 120-150˚C.
The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specifications from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS
ARDEX WPM 122 is hazardous; non-dangerous goods. However during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.
Do not use open flame on or near highly combustible materials. Follow all local fire codes.

STORAGE
All rolls of ARDEX WPM 122 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.
PACKAGING
Roll size: 1m x 10m
Roll weight: 52kg
Rolls per pallet: 16

TECHNICAL DATA
The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 122 Waterproofing Membrane.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
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<tbody>
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<td>Length</td>
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<tr>
<td>Width</td>
<td>UNI EN 1848-1</td>
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<tr>
<td>Thickness</td>
<td>UNI EN 1849-1</td>
<td>mm</td>
<td>5.0</td>
</tr>
<tr>
<td>Aeric Mass</td>
<td>UNI EN 1849-1</td>
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<tr>
<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>120</td>
</tr>
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<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−10</td>
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<td>Tensile strength</td>
<td>UNI EN 12311-1</td>
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<td></td>
</tr>
<tr>
<td>Ultimate Longitudinal</td>
<td>N/5cm</td>
<td>1,150</td>
<td></td>
</tr>
<tr>
<td>Ultimate Transverse</td>
<td>N/5cm</td>
<td>950</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>UNI EN 12311-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>%</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>%</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Tear resistance</td>
<td>UNI EN 12310-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>N</td>
<td>200</td>
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<td>Transverse</td>
<td>N</td>
<td>200</td>
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<td>Reinforcement</td>
<td>polyester</td>
<td>g.s.m.</td>
<td>300</td>
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<td>Surface finishes</td>
<td>Lower¹</td>
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</tr>
<tr>
<td></td>
<td>Top²</td>
<td></td>
<td></td>
</tr>
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</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.
Note 2) Top surface; exposed to underside of covering membrane.

All tests have been carried out to UEATC, to tolerances as per European Directive.
DISCLAIMER

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The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.
ARDEX WPM 126
(4.0mm Combined Reinforced APAO Bitumen Membrane)

Excellent cold flexibility to -35°C

Excellent elongation

Used as a high performance multi-layer tanking membrane, in horizontal and vertical applications

Also used for waterproofing balconies, terraces and roofs
ARDEX WPM 126
4.0mm Combined Reinforced APAO Bitumen Membrane

PRODUCT DESCRIPTION
ARDEX WPM 126 is an APAO (Amorphous Poly Alpha Olefin) plastomeric type modified bitumen membrane, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers and reinforced with a combined reinforcement (polyester and fibreglass).

ARDEX WPM 126 is coated with either a sanded or talc top surface finish, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.

1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.
2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering.

FEATURES AND BENEFITS
A.P.A.O. modified compound
• Excellent cold flexibility to -35°C
• Excellent Cold Stability & Thermal Ageing Properties
• Excellent elongation
• Heat welded laps provide homogenous joint
• Prefabricated membrane
• Good elastic memory

Combined reinforcement carrier
• High mechanical characteristics
• High puncture resistance
• Good elongation
• Will not decay

USES
ARDEX WPM 126 is used as a high performance multi-layer tanking membrane in horizontal or vertical applications, also for waterproofing balconies, terraces and roofs. This product is particularly suitable for extreme cold conditions. ARDEX ARDEX WPM 126 membrane is a sandwich membrane and must be protected from UV.

ARDEX WPM 126 is also available as a fibre backed membrane for bonding to substrates and in a slate mineral finish for exposed conditions.

INSTALLATION
The application of ARDEX WPM 126 should be carried out by an accredited applicator.

Installation shall be strictly in accordance with the manufacturer’s recommendations.

Acceptable substrates to which ARDEX WPM 126 is to be installed must be properly prepared prior to membrane installation.

All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.

Prior to the application of ARDEX WPM 126, base substrate surfaces should be primed with ARDEX WPM 240 (Shelterbit Primer). Coverage of primer will depend on the porosity of the substrate.

ARDEX WPM 126 is normally fully bonded to the prepared substrate with side laps of 100mm and end laps of 150mm. Overlaps shall be sealed by torch.

ARDEX WPM 126 may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.

The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specification from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS
ARDEX WPM 126 is hazardous; non-dangerous goods.

However, during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smoldering or burning conditions.

Do not use open flame on or near highly combustible materials. Follow all local fire codes.

STORAGE
All rolls of ARDEX WPM 126 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

PACKAGING
Roll size: 1m x 10m
Roll weight: Approximately 40kg
Rolls per pallet: 20
TECHNICAL DATA

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 126 Waterproofing Membrane.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
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<td>Length</td>
<td>UNI EN 1848-1</td>
<td>m</td>
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<tr>
<td>Width</td>
<td>UNI EN 1848-1</td>
<td>m</td>
<td>1.0</td>
</tr>
<tr>
<td>Thickness</td>
<td>UNI EN 1849-1</td>
<td>mm</td>
<td>4.0</td>
</tr>
<tr>
<td>Aeric Mass</td>
<td>UNI EN 1849-1</td>
<td>kg/m²</td>
<td>5.4</td>
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<tr>
<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>140</td>
</tr>
<tr>
<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−35</td>
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<tr>
<td>Cold Flexibility after 6 months @ 70°C</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−35</td>
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<td>Dimensional Stability</td>
<td>EN 1107-1A</td>
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<tr>
<td>Longitudinal</td>
<td>%</td>
<td>−0.3</td>
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</tr>
<tr>
<td>Transverse</td>
<td>%</td>
<td>+0.3</td>
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<tr>
<td>Impermeability</td>
<td>UNI EN 1928</td>
<td>kPa</td>
<td>60</td>
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<td>UNI EN 12311-1</td>
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<tr>
<td>Ultimate Longitudinal</td>
<td>N/5cm</td>
<td>900</td>
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<tr>
<td>Ultimate Transverse</td>
<td>N/5cm</td>
<td>650</td>
<td></td>
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<tr>
<td>Elongation at Break</td>
<td>UNI EN 12311-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>%</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>%</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Tear resistance</td>
<td>UNI EN 12310-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>N</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>N</td>
<td>180</td>
<td></td>
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<tr>
<td>Reinforcement</td>
<td>Combined</td>
<td>g.s.m.</td>
<td>180</td>
</tr>
<tr>
<td>Surface finishes</td>
<td>Lower¹</td>
<td>torch film</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top²</td>
<td>sand</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

All tests have been carried out to UEATC, to tolerances as per European Directive.
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ARDEX WPM 150
(Sherletbit 3/160 Membrane)

3.0mm Combined Reinforced APP Bitumen Membrane

Cold flexibility to -5°C

Excellent elongation
PRODUCT DESCRIPTION
ARDEX WPM 150 (Shelterbit 3/160) is an A.P.P. (Atactic Polypropylene Plastomeric) type modified bitumen membrane, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers and reinforced with a polyester reinforcement.
ARDEX WPM 150 is coated with either a sanded or talc top surface finish, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.
1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.
2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering.

FEATURES AND BENEFITS
A.P.P. modified compound
• Excellent cold flexibility to -5°C
• Excellent elongation
• Heat welded laps provide homogenous joint
• Prefabricated membrane
• Good elastic memory

Combined reinforcement carrier
• High mechanical characteristics
• High puncture resistance
• Good elongation
• Will not decay

USES
ARDEX WPM 150 is used as a single layer or multi-layer tanking membrane in horizontal or vertical applications, also for waterproofing balconies, terraces and roofs. ARDEX WPM 150 membrane is a sandwich membrane and must be protected from UV radiation.

INSTALLATION
The application of ARDEX WPM 150 should be carried out by an accredited applicator.
Installation shall be strictly in accordance with the manufacturer's recommendations.
Acceptable substrates to which ARDEX WPM 150 systems are installed must be properly prepared prior to membrane installation.
All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.
Prior to the application of ARDEX WPM 150 the base substrate surfaces should be primed with ARDEX WPM 240 (Shelterbit Primer). Coverage of primer will depend on the porosity of the substrate.
ARDEX WPM 150 is normally fully bonded to the prepared substrate with side laps of 75mm and end laps of 100mm. Overlaps shall be sealed by torch.
ARDEX WPM 150 may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.
The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specification from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS
ARDEX WPM 150 is hazardous; non-dangerous goods. However during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.
Do not use open flame on or near highly combustible materials. Follow all local fire codes.

STORAGE
All rolls of ARDEX WPM 150 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

PACKAGING
Roll size: 1m x 10m
Roll weight: Approximately 35kg
Rolls per pallet: 28
**TECHNICAL DATA**

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 150 Waterproofing Membrane.

<table>
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<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
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<tbody>
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<td>Length</td>
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<tr>
<td>Thickness</td>
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<td>mm</td>
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<td>Aeric Mass</td>
<td>UNI EN 1849-1</td>
<td>kg/m²</td>
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<tr>
<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>110</td>
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<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−5</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>UNI EN 12311-1</td>
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</tr>
<tr>
<td>Ultimate Longitudinal</td>
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<tr>
<td>Ultimate Transverse</td>
<td>N/5cm</td>
<td>560</td>
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<td>Elongation at Break</td>
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<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>%</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>%</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Tear resistance</td>
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<tr>
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<td>N</td>
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</tr>
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<tr>
<td>Reinforcement</td>
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<td>g.s.m.</td>
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<td>Lower¹</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Top²</td>
<td>sand</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

All tests have been carried out to UEATC, to tolerances as per European Directive.
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ARDEX WPM 180
(Sherletbit 180 Membrane)

3.5mm Combined Reinforced APP Bitumen Membrane

Cold flexibility to -5°C

Excellent elongation

Prefabricated membrane
ARDEX WPM 180
(Shelterbit 180 Membrane)
3.5mm Combined Reinforced APP Bitumen Membrane

PRODUCT DESCRIPTION
ARDEX WPM 180 (Shelterbit Fibrepol 180) is an A.P.P. (Atactic Polypropylene Plastomeric) type modified bitumen membrane, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers and reinforced with a combined reinforcement (polyester and fibreglass).
ARDEX WPM 180 is coated with either a sanded or talc top surface finish, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.
1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.
2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering.

FEATURES AND BENEFITS
A.P.P. modified compound
• Excellent cold flexibility to -5˚C
• Excellent elongation
• Heat welded laps provide homogenous joint
• Prefabricated membrane
• Good elastic memory

Combined reinforcement carrier
• High mechanical characteristics
• High puncture resistance
• Good elongation
• Will not decay

USES
ARDEX WPM 180 is used as a single layer or multi-layer tanking membrane in horizontal or vertical applications, also for waterproofing balconies, terraces and roofs. ARDEX WPM 180 membrane is a sandwich membrane and must be protected from UV radiation.

INSTALLATION
The application of ARDEX WPM 180 should be carried out by an accredited applicator.
Installation shall be strictly in accordance with the manufacturer’s recommendations.
Acceptable substrates to which ARDEX WPM 180 is to be installed must be properly prepared prior to membrane installation.
All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.
Prior to the application of ARDEX WPM 180 base substrate surfaces should be primed with ARDEX WPM 240 (Shelterbit Primer). Coverage of primer will depend on the porosity of the substrate.
ARDEX WPM 180 is normally fully bonded to the prepared substrate with side laps of 75mm and end laps of 100mm. Overlaps shall be sealed by torch.
ARDEX WPM 180 may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.
The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specification from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS
ARDEX WPM 180 is hazardous; non-dangerous goods.
However during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.
Do not use open flame on or near highly combustible materials. Follow all local fire codes.

STORAGE
All rolls of ARDEX WPM 180 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

PACKAGING
Roll size: 1m x 10m
Roll weight: Approximately 42kg
Rolls per pallet: 23
### TECHNICAL DATA

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX Shelterbit Waterproofing Membrane.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
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</thead>
<tbody>
<tr>
<td>Length</td>
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<td>Aeric Mass</td>
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<tr>
<td>Heat Stability</td>
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<tr>
<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
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<td>−5</td>
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<tr>
<td>Tensile strength</td>
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<tr>
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<td>Ultimate Transverse</td>
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<td>Elongation at Break</td>
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<tr>
<td>Longitudinal</td>
<td>%</td>
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<tr>
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<td>UNI EN 12310-1</td>
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<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>N</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>N</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Reinforcement</td>
<td>Combined</td>
<td>g.s.m.</td>
<td>180</td>
</tr>
<tr>
<td>Surface finishes</td>
<td>Lower¹</td>
<td>torch film</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top²</td>
<td>sand</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

All tests have been carried out to UEATC, to tolerances as per European Directive.
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ARDEX WPM 185
(Shelterbit Mineral Membrane)

4.5kg/m² Mineral Coated APP Bitumen Membrane

Excellent resistance to atmospheric agents

Resistant to chemical attacks

High puncture resistance
ARDEX WPM 185
(Shelterbit Mineral Membrane)
4.5kg/m² Mineral Coated APP Bitumen Membrane

PRODUCT DESCRIPTION
ARDEX WPM 185 (Shelterbit Mineral) is an A.P.P. (Atactic Polypropylene Plastomeric) type modified bitumen membrane, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers and reinforced with a combined reinforcement (Polyester and Fibreglass).

ARDEX WPM 185 is coated with a slate mineral granule topping, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.

1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.

2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering.

FEATURES AND BENEFITS
- Positive vapour barrier
- Excellent resistance to atmospheric agents
- Cold flexibility -5°C
- Excellent elongation
- Resistant to chemical attacks
- Withstand thermal shocks
- Heat welded laps provide homogenous joint
- Prefabricated membrane
- High puncture resistance

USES
ARDEX WPM 185 is used as a cap layer in exposed membrane systems (allowing light foot traffic for maintenance).

ARDEX WPM 185 is available in slate grey, green and white.

INSTALLATION
The application of ARDEX WPM 185 should be carried out by an accredited applicator.

Installation shall be strictly in accordance with the manufacturer’s recommendations.

Acceptable substrates to which ARDEX WPM 185 is to be installed must be properly prepared prior to membrane installation.

All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.

ARDEX WPM 185 is normally installed in a multi-layer system incorporating ARDEX Bitumen membranes or base sheets.

ARDEX WPM 185 is fully bonded to plan or base layer. Overlaps are always torch-bonded with a width of 10cm.

The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specification from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS
ARDEX WPM 185 is hazardous; non-dangerous goods.

However during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.

Do not use open flame on or near highly combustible materials. Follow all local fire codes.

STORAGE
All rolls of ARDEX WPM 185 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

PACKAGING
Roll size: 1m x 10m
Roll weight: Approximately 45kg
Rolls per pallet: 20
**TECHNICAL DATA**

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 185 Waterproofing Membrane.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
</tr>
</thead>
<tbody>
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<td>m</td>
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<td>Width</td>
<td>UNI EN 1848-1</td>
<td>m</td>
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<tr>
<td>Aeric Mass</td>
<td>UNI EN 1849-1</td>
<td>kg/m²</td>
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<tr>
<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>110</td>
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<tr>
<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−5</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>UNI EN 12311-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ultimate Longitudinal</td>
<td></td>
<td>N/5cm</td>
<td>720</td>
</tr>
<tr>
<td>Ultimate Transverse</td>
<td></td>
<td>N/5cm</td>
<td>420</td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>UNI EN 12311-1</td>
<td></td>
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</tr>
<tr>
<td>Longitudinal</td>
<td></td>
<td>%</td>
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<td>Transverse</td>
<td></td>
<td>%</td>
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<td>Tear resistance</td>
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<td>Transverse</td>
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<td>N</td>
<td>120</td>
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<tr>
<td>Reinforcement</td>
<td>Combined</td>
<td>g.s.m.</td>
<td>180</td>
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<tr>
<td>Surface finishes</td>
<td>Lower¹ torch film</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top² slate chip</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

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ARDEX WPM 186
(Sherterbit Garden Membrane)

3.5mm Garden APP Bitumen Membrane

Positive vapour barrier

Excellent resistance to pollutants and aging

Good elongation and flexibility

For waterproofing planter boxes, garden beds, roof gardens and flower beds

Contains root inhibitor – stops roots from plants damaging the membrane
ARDdex WPM 186 (Shelterbit Garden) is an A.P.P. (Atactic Polypropylene Plastomeric) torch applied modified waterproofing membrane, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers and reinforced with a high quality combined reinforcement (fibreglass and polyester) and treated with preventive chemical to stop roots from plants damaging the membrane.

ARDDEX WPM 186 is coated with either a sanded or talc top surface finish, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.

1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.
2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature, avoiding possible problems of bubbling and blistering.

FEATURES AND BENEFITS

- Positive vapour barrier
- Excellent resistance to pollutants and aging
- Excellent cold flexibility -5˚C
- Maintains shape stability at high temperatures
- High resistance to perforation
- Is rot-proof
- Resists root growth ingress into both the membrane and the laps
- Good elongation and flexibility
- Heat welded laps provide an homogenous joint

USES

ARDDEX WPM 186 has been especially formulated for the waterproofing of:

- Planter boxes
- Garden beds
- Roof gardens
- Flower beds
- Green covered civil works etc

ARDDEX WPM 186 may be installed in a one or multi-layer system incorporating normal bitumen membranes. ARDEX WPM 186 always being the top layer.

INSTALLATION

The application of ARDEX WPM 186 should be carried out by an accredited applicator.

Installation shall be strictly in accordance with the manufacturer's recommendations.

Acceptable substrates to which ARDEX WPM 186 is to be installed must be properly prepared prior to membrane installation.

All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.

Prior to the application of ARDEX WPM 186 the surface should be primed with ARDEX WPM 200 (Shelterbit primer).

Coverage of primer will depend on the porosity of the substrate.

ARDDEX WPM 186 is normally fully bonded to the prepared substrate with side laps of 10cm and end laps of 15cm overlaps shall be sealed by torch.

ARDDEX WPM 186 may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.

The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specifications from ARDEX Australia Pty Ltd.

SAFETY PRECAUTIONS

ARDdex WPM 186 is hazardous; non-dangerous goods.

However during installation, exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.

Do not use open flame on or near highly combustible materials. Follow all local fire codes.

STORAGE

All rolls of ARDEX WPM 186 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

PACKAGING

- Roll size: 1m x 10m
- Roll weight: Approximately 42kg
- Rolls per pallet: 23
## TECHNICAL DATA

The Technical Data shown below are the average results of the Tests, Measurements and Trials, carried out on ARDEX WPM 186 Waterproofing Membrane.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
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<tbody>
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<td>Length</td>
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<td>m</td>
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<tr>
<td>Width</td>
<td>UNI EN 1848-1</td>
<td>m</td>
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<tr>
<td>Thickness</td>
<td>UNI EN 1849-1</td>
<td>mm</td>
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<tr>
<td>Aeric Mass</td>
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<tr>
<td>Heat Stability</td>
<td>UNI EN 1110</td>
<td>°C</td>
<td>110</td>
</tr>
<tr>
<td>Cold Flexibility</td>
<td>UNI EN 1109</td>
<td>°C</td>
<td>−5</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>UNI EN 12311-1</td>
<td></td>
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</tr>
<tr>
<td>Ultimate Longitudinal</td>
<td>N/5cm</td>
<td></td>
<td>720</td>
</tr>
<tr>
<td>Ultimate Transverse</td>
<td>N/5cm</td>
<td></td>
<td>420</td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>UNI EN 12311-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>%</td>
<td></td>
<td>40</td>
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<tr>
<td>Transverse</td>
<td>%</td>
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<tr>
<td>Tear resistance</td>
<td>UNI EN 12310-1</td>
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<td></td>
</tr>
<tr>
<td>Longitudinal</td>
<td>N</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>Transverse</td>
<td>N</td>
<td></td>
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<tr>
<td>Reinforcement</td>
<td>Combined</td>
<td>g.s.m.</td>
<td>180</td>
</tr>
<tr>
<td>Surface finishes</td>
<td>Lower¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.

Note 2) Top surface; exposed to underside of covering membrane.

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ARDEX WPM 191
(Sherberbit SBS Cold Climate Membrane)

Provides an excellent waterproofing membrane for new and existing constructions

High flexibility during application at sub-zero temperature with no physical strains

Withstands thermal shocks

Proven performance in colder regions
**PRODUCT DESCRIPTION**

ARDEX WPM 191 (Shelterbit Fibrepol SBS) is a high performance Styrene-Butadine-Styrene (S.B.S.) rubber modified bitumen membrane, reinforced with a combined reinforcement (polyester and fibreglass).

The exceptional elongation properties of S.B.S. combined with the strength and dimensional stability of the reinforcing, provides an excellent waterproofing membrane for new and existing constructions.

ARDEX WPM 191 is coated with either a sanded or talc top surface finish, while the bottom surface is embossed and protected by a heat sensitive polythene film. This type of finish for the lower surface has been chosen for two specific purposes.

1. To act as a temperature gauge during application. When the film melts it shows that the compound is at the correct temperature.
2. The embossing is to allow the gases to rapidly escape when heated to its correct installation temperature avoiding possible problems of bubbling and blistering.

**FEATURES AND BENEFITS**

- Positive vapour barrier
- Excellent resistance to atmosphere agents
- High flexibility during application at sub-zero temperature with no physical strains
- High malleability
- Accommodates structural movements
- Resistant to chemical attacks
- Withstands thermal shocks
- Proven performance in colder regions
- Good elongation and flexibility

**USES**

ARDEX WPM 191 is used as a single layer or multi-layer tanking membrane in horizontal or vertical applications, also for waterproofing balconies, terraces and flat roofs. ARDEX WPM 191 membrane is a sandwich membrane and must be protected from UV radiation.

ARDEX WPM 191 is available in mineral finish for exposed roof areas.

**INSTALLATION**

The application of ARDEX WPM 191 should be carried out by an accredited applicator.

Installation shall be strictly in accordance with the manufacturers recommendations.

Acceptable substrates to which ARDEX WPM 191 is to be installed must be properly prepared prior to membrane installation.

All surfaces must be dry, clean, smooth, free of sharp edges, loose or foreign materials, oil, grease and other materials which may damage the membrane.

Prior to the application of ARDEX WPM 191 the surface may require priming with ARDEX WPM 240 (Shelterbit primer). Coverage of primer will depend on the porosity of the substrate.

ARDEX WPM 191 is normally fully bonded to the prepared substrate with side laps of 10cm and end laps of 15cm overlaps shall be sealed by torch.

ARDEX WPM 191 may be used in various combinations to produce a variety of specifications tailored to suit the individual waterproofing need.

The exact specification will depend on functional and economic requirements. Advice should be sought for suitable specifications from ARDEX Australia Pty Ltd.

**SAFETY PRECAUTIONS**

ARDEX WPM 191 is hazardous; non-dangerous goods. However during installation exercise caution when working with open flame. Examine all surfaces to which the flame has been applied for smouldering or burning conditions.

Do not use open flame on or near highly combustible materials. Follow all local fire codes.

**STORAGE**

All rolls of ARDEX WPM 191 should be stored in a covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

**PACKAGING**

Roll size: 1m x 10m
Roll weight: Approximately 43kg
Rolls per pallet: 23
TECHNICAL DATA

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<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Standard</th>
<th>Units</th>
<th>Nom.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>UNI EN 1848-1</td>
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<tr>
<td>Width</td>
<td>UNI EN 1848-1</td>
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<tr>
<td>Thickness</td>
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<td>mm</td>
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<tr>
<td>Aeric Mass</td>
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<td>kg/m²</td>
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<td>Tensile strength</td>
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<tr>
<td>Ultimate Longitudinal</td>
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<td>720</td>
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<tr>
<td>Ultimate Transverse</td>
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</tr>
<tr>
<td>Longitudinal</td>
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<td>%</td>
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<td>Transverse</td>
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<tr>
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<td>torch film</td>
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</tr>
<tr>
<td></td>
<td>Top²</td>
<td>torch film</td>
<td></td>
</tr>
</tbody>
</table>

Note 1) Lower surface; the surface which is applied to the structure being waterproofed.
Note 2) Top surface; exposed to underside of covering membrane.

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ARDEX WPM 3000X
(Shelterseal 3000X Membrane)

Cold application – installed without the use of open flames

Chemical resistance – highly resistant to acids, alkalis and other pollutants

Self sealing – membrane self seals on contact maintaining watertightness

Ideal for planter boxes, below ground applications and retaining walls
ARDEX WPM 3000X
(Shelterseal 3000X Membrane)
1.5mm SBS Self Adhesive Sheet Membrane

PRODUCT DESCRIPTION
ARDEX WPM 3000X (Shelterseal 3000X Self Adhesive Membrane) is a “peel and stick” bituminous/asphalt membrane protected by a cross laminated high-density polyethylene film.
ARDEX WPM 3000X is made from two structural components. Bitumen/asphalt compound modified with SBS and high tack resins
This special compound has been formulated to make the product easy to install. The membrane can be adjusted should it initially be placed in the wrong position, as the adhesive on the sheet achieves final adhesion only after a few minutes.

Protective film
This is hot-laminated to the bituminous/asphalt compound and gives the membrane its mechanical and physical characteristics, such as heat stability, shape, chemical resistance, etc.

FEATURES/BENEFITS
Cold Application
Installed without the use of open flames. Ideal for installation in restricted spaces.

Chemical resistance
The protective polymer film is highly resistant to acids, alkalis and other pollutants.

Flexibility and adaptability
This membrane will adapt easily to irregularly shaped surfaces, and will stretch without breaking or cracking.

Self sealing
The membrane self seals on contact maintaining its watertightness.

Constant thickness
The membrane is manufactured using high-tech machinery which constantly monitors its thickness, and ensures that the films and synthetic materials are manufactured to the highest specifications and quality control requirements.

ACCEPTABLE SUBSTRATES
• Concretes, renders and screeds
• Fibre cement sheets
• Structural or marine plywood
• Polystyrene blocks
For use over other substrates including existing membranes contact ARDEX.

TYPICAL APPLICATIONS
• Planter boxes
• Foundations
• Below-ground applications
• Retaining walls
• Balcony Decks under cement screeds or other compatible hard covering

BASIC APPLICATION INSTRUCTIONS
Surface Preparation
Surfaces to which the ARDEX WPM 3000X is to be installed must be properly prepared prior to installation. All surfaces must be clean, dry, smooth, free of sharp edges, loose or foreign materials, oil, grease, and other materials that may damage the membrane. If concrete has moisture on surface use gas torch to dry and warm before priming, apply one coat of ARDEX WPM 300 at a coverage rate of 3.0m² per L and allow to cure for at least 3 days prior to proceeding.

Priming
Prior to the application of the membrane all prepared surfaces (except polystyrene blocks) should be primed with ARDEX WPM 249 (Shelterseal Primer) at a rate of 5–6m² per litre and allowed to dry.

Application of ARDEX WPM 3000X
ARDEX WPM 3000X should always be applied from the lowest point to enable laps to shed water. All edge and end laps must be overlapped a minimum of 60mm. Internal and external corners shall be reinforced with an extra layer of membrane 300mm wide. All end laps and exposed edges should be sealed. On vertical surfaces the installation should start at the lowest point with the joints overlapping by at least 100mm, and formed so that they will shed water. All rolls of ARDEX WPM 3000X are marked with a 60mm line for overlapping.
Ensure that the membrane is properly adhered to the surface at perimeters or around penetrations.

On completion of the installation of ARDEX WPM 3000X it is recommended that a protection board be used before back filling to protect the membrane from damage.
Under no circumstances should the membrane be left exposed to UV light for long periods.

Two Layer DPC System
In critical areas a specifier may require a second layer of ARDEX WPM 3000X to be applied with laps staggered to the first layer.
ARDEX WPM 3000X should be installed by approved applicators, well trained in the application of self-adhesive membranes. Installation shall be strictly in accordance with ARDEX recommendations.

SAFETY PRECAUTIONS
ARDEX WPM 3000X is hazardous; non-dangerous goods. Wear eye/face protection. Use only in well ventilated areas. Keep rolls in well ventilated place. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

ARDEX WPM 249 is hazardous; non-dangerous goods. It is highly flammable, harmful if swallowed and irritating to the eyes and skin. Keep away from sources of ignition. No smoking. Keep container tightly closed and in a well ventilated place.

ADDITIONAL INFORMATION FOR ARDEX WPM 249 IS FOUND IN THE MATERIAL SAFETY DATA SHEET.

STORAGE
All rolls of ARDEX WPM 3000X, whether palletised or loose, should be stored in a cool covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

PACKAGING
Roll size: 1m x 20m
Roll weight: Approx 30kg.
Other products: ARDEX WPM 249 (Shelterseal Primer) - 5 litres and 20 litres.
Rolls per pallet: 25

<table>
<thead>
<tr>
<th>Properties</th>
<th>Typical Values</th>
<th>Test Method</th>
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<tbody>
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<td>Thickness</td>
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<td>UNI 8202</td>
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<tr>
<td>Weight</td>
<td>1.6kg</td>
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<td>Adhesion to primed concrete</td>
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<td>Environmental resistance</td>
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DISCLAIMER

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standard, our instructions and recommendations and only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program.

Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations.

The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.
ARDEX WPM 5000HD
(Sherterseal 5000HD Membrane)

Cold application – installed without the use of open flames

Slip free surface – membrane provides an ideal, safe working surface

Ideal for parking decks and car parks, vehicular traffic structures and also expansion joints
PRODUCT DESCRIPTION
ARDEX WPM 5000HD (Shelterseal 5000 HD Self Adhesive Membrane) is an industrial strength “peel and stick” bituminous/asphalt membrane. ARDEX WPM 5000HD is reinforced with a layer of polypropylene mesh giving the product exceptionally high mechanical characteristics.
ARDEX WPM 5000HD is made from two structural components:
- Bitumen/asphalt compound modified with SBS and high tack resins.
- A protective polypropylene mesh hot laminated to the bituminous/asphalt compound. This gives the membrane its mechanical and physical characteristics, such as heat and shape stability, chemical and puncture resistance.

FEATURES/BENEFITS
Cold Application
Installed without the use of open flames. Ideal for installation in restricted spaces.
High durability
Polypropylene mesh reinforcement layer provides tough, puncture resistant finish.
Constant thickness
The membrane is manufactured using the highest quality materials, standards and sheet manufacturing techniques.
Slip free surface
Membrane provides an ideal, safe working surface.

ACCEPTABLE SUBSTRATES
- Concrete, renders and screeds
- Fibre cement sheets
- Structural or marine plywood
For use over other substrates including existing membranes contact ARDEX.

TYPICAL APPLICATIONS
- Parking decks & car parks
- Vehicular traffic structures
- Expansion joints
- Underneath clay tiles or asphalt shingles
- Any applications where the waterproofing must have high mechanical characteristics

BASIC APPLICATION INSTRUCTIONS
Surface Preparation
Surfaces to which the ARDEX WPM 5000HD is to be installed must be properly prepared prior to installation. All surfaces must be clean, dry, smooth, free of sharp edges, loose or foreign materials, oil, grease, and other materials that may damage the membrane. If concrete has moisture on surface use gas torch to dry and warm before priming, or apply 1 coat of ARDEX WPM 300 at a coverage rate of 3.0m² per L and allow to cure for at least 3 days prior to proceeding.

Priming
Prior to the application of the membrane all prepared surfaces should be primed with ARDEX WPM 249 (Shelterseal Primer) at a rate of 5-6m² per litre and allowed to dry.

Application of ARDEX WPM 5000HD
ARDEX WPM 5000HD should always be applied from the lowest point to enable laps to shed water. All edge and end laps must be overlapped a minimum of 60mm. Internal and external corners shall be reinforced with an extra layer of membrane 300mm wide. All end laps and exposed edges shall be sealed with a bead of Self Adhesive Mastic.

On vertical surfaces the installation should start at the lowest point with the joints overlapping by at least 100mm, and formed so that they will shed water. All rolls of ARDEX WPM 5000HD are marked with a 60mm line for overlapping.

Ensure that the membrane is properly adhered to the surface at perimeters or around penetrations.

On completion of the installation of ARDEX WPM 5000HD it is necessary that protection board be used before back filling to protect the membrane from damage.

Under no circumstances should the membrane be left exposed to UV light for long periods.

Applying asphalt directly over ARDEX WPM 5000HD.
The asphalt should be applied as soon as possible after the Shelterseal membrane has been installed. ARDEX recommend applying a minimum 50mm compacted overlay for carpark areas. The topping should be applied at a temperature of between 120-150°C.

ARDEX WPM 5000HD should be installed by approved applicators, well trained in the application of self-adhesive membranes. Installation shall be strictly in accordance with ARDEX recommendations.
SAFETY PRECAUTIONS

ARDEX WPM 5000HD is hazardous; non-dangerous goods. Wear eye/face protection. Use only in well ventilated areas. Keep rolls in a well ventilated place. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

ARDEX WPM 249 is hazardous; non-dangerous goods. It is highly flammable, harmful if swallowed and irritating to the eyes and skin. Keep away from sources of ignition. No smoking. Keep container tightly closed and in a well ventilated place.

ADDITIONAL INFORMATION FOR ARDEX WPM 249 IS FOUND IN THE MATERIAL SAFETY DATA SHEET.

STORAGE

All rolls of ARDEX WPM 5000HD, whether palletised or loose, should be stored in a cool covered area protected against sunlight and UV radiation. Rolls should be stored in a vertical position on a smooth floor so as not to damage the edges.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

PACKAGING

Roll size: 1m x 20m
Roll weight: Approx 30kg.
Other products: ARDEX Shelterseal Primer 5 litres and 20 litres.
Rolls per pallet: 25

TECHNICAL PERFORMANCE DATA

<table>
<thead>
<tr>
<th>Properties</th>
<th>Typical Values</th>
<th>Test Method</th>
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<td>Elongation (transverse)</td>
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<tr>
<td>Adhesion</td>
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<tr>
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<td>4.9 N/mm</td>
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<tr>
<td>To steel</td>
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<td>Puncture resistance</td>
<td>220 N/65mm</td>
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<td>Vapour transmission rate</td>
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<tr>
<td>Cold flexibility</td>
<td>-30˚C</td>
<td>ASTM D146</td>
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Queensland Ph (07) 3817 6000 Fax (07) 3881 3188
Victoria/Tasmania Ph (03) 9308 9255 Fax (03) 9308 9332
South Australia Ph (08) 8268 2511 Fax (08) 8345 3207
Western Australia Ph (08) 9256 8600 Fax (08) 9455 1227

ARDEX New Zealand Ltd
Auckland Ph (09) 5800 005 Fax (09) 5799 963
Wellington Ph (04) 5685 949 Fax (04) 5686 376
Christchurch Ph (03) 3843 029 Fax (03) 3849 779

Technical Services Toll Free: 1800 224 070

Date: July 2007
ARDEX Shelterseal
Associated Products
ARDEX WPM 249 PRIMER (SHELTERSEAL PRIMER) PRIMER FOR SBS SELF-ADHESIVE MEMBRANES
A solvent based bitumen modified primer designed to seal and prepare the substrate prior to the installation of ARDEX SBS (Shelterseal) Self Adhesive Membranes.

PRODUCT DESCRIPTION
Black liquid with strong solvent odour.

APPLICATION
Surface Preparation: Ensure that the surface to be primed is dry and free from dust, oil, paint, curing membranes, form release agents and all other contaminants.
Stir contents well before use.
Apply by brush or roller working the primer into the surface.
Primer must be dry before applying membrane.

COVERAGE
One (1) litre of ARDEX WPM 249 (Shelterseal) Primer will cover approximately 5m².

DRYING TIME
Approximately 20-30 minutes @ 23°C.

CLEAN-UP
Wash equipment with ARDEX WPM 290 (WA) solvent.

PACKAGING
20 Litres
SHELF LIFE
12 Months in original unopened packaging stored at 23°C.

LIMITATIONS
Primer should be used with appropriate mask and breathing apparatus in areas of poor ventilation and/or air flow.

SAFETY PRECAUTIONS
ARDEX WPM 249 is hazardous and a dangerous goods. It is highly flammable and irritating to the eyes and skin. No smoking. Harmful if swallowed. Keep away from sources of ignition. Keep container in a well ventilated place.

FIRE
ARDEX WPM 249 is highly flammable. Severe fire hazard when exposed to heat and/or oxidisers. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers.
It is essential to ensure ARDEX WPM 249 Primer has fully dried before the Ardex Torch Applied Bitumen membranes are installed.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

ARDEX PRESSURE SEAL
Membrane Protection
Designed to seal the edges of ARDEX Butynol or ARDEX Torch Applied Bitumen (Shelterbit) Membranes and ARDEX SBS Self Adhesive (Shelterseal) Membranes where no existing cavity flashing or dampcourse has been installed.

PRODUCT DESCRIPTION
3 metre lengths of specially formed aluminium strip.

INSTALLATION
The ARDEX Pressure Seal is mechanically fixed through the top edge of the membrane at 500mm intervals. The uppermost edge of the strip is then sealed with ARDEX Butynol Sealant along the profile provided.

PACKAGING
Packs containing 10 x 3 metre lengths.

ARDEX PROTECTION BOARD
Membrane Termination Seal
ARDEX Protection Board is a fluted polyethylene board designed to be used after the membrane installation and prior to backfilling to protect the membrane from mechanical damage during the backfilling operation.

SIZE
1,800 X 1,200mm fluted boards.

PACKAGING
Packs of 25 boards.
ARDEX WPM 240 (SHELTERBIT PRIMER)
PRIMER FOR BITUMINOUS MEMBRANES

A solvent based bitumen modified primer to be used to seal and prepare the substrate prior to the installation of ARDEX Torch Applied Bitumen membranes.

PRODUCT DESCRIPTION
Black liquid comprising a bitumen cut dissolved in mineral spirits.

PACKAGING
5 litres and 20 litres.

SHELF LIFE
12 months in the original unopened packaging stored at 23°C.

COVERAGE
Coverage of ARDEX WPM 240 (Shelterbit) Primer is approximately 5m² per litre. Coverage will vary depending on the porosity of the substrate surface.

DRYING TIME
Approx. 1-2 hours @ 23°C.

APPLICATION
Surface preparation:
Ensure that the surface to be primed is dry and free from dust, oil, paint, curing compounds and any other contaminating materials.

Application:
Stir contents well before use. Apply by brush, roller or airless spray. Primer must be dry before applying membrane.

CLEAN UP
Wash equipment with ARDEX WPM 290 (Shelter WA) Solvent.

FLAMMABILITY
ARDEX WPM 240 Primer is classified flammable. It is essential to ensure the primer has fully dried before the ARDEX Torch Applied Bitumen Membranes are installed.

FIRST AID
Swallowed: Give water to clean mouth. Do not induce vomiting. Skin: remove contaminated clothing. Wash skin thoroughly with soap and water. Eyes: hold open and flood with water for at least 15 minutes. Inhalation: remove to fresh air. If breathing is difficult administer oxygen.

If irritation continues seek medical attention promptly.

LIMITATIONS
Primer should be used with appropriate mask and breathing apparatus in areas with poor ventilation/air flow.

ARDEX PAVER SUPPORT PAD
ARDEX Paver Support Pads are pads specifically designed to protect ARDEX Sheet Membranes when laying pavers over the membrane.
The installation of Paver Support Pads also provides excellent drainage under the pavers thus avoiding the risk of paver flooding.

ARDEX Paver Support Pads are positioned at each corner of each paver installed as indicated in the diagrams below:-

PACKAGING
Pack of 300

ARDEX DROPPER
Formed from Butyral rubber these Outlets are available in a range of sizes to suit various drainage piping. The Outlets are inserted into the pipe, sealed into the pipe with silicone and the ARDEX Sheet Membranes are torched or bonded directly onto the Outlet providing an easy, quick and secure watertight seal.

Stock Sizes
65mm OD
100mm OD
ARDEX SPITTER OUTLET

Formed from Butyral rubber these Outlets are used to seal the full extent of the outlet which would be otherwise impossible. Easy to install through parapet or balcony walls, etc. The ARDEX Sheet Membrane is bonded or torched to the flaps providing an easy, quick and secure watertight seal.

Outlet Dimensions
100 x 65mm
Outlet Length
420mm

ARDEX PRESSURE SEAL

Membrane Protection

Designed to seal the edges of ARDEX Butynol or ARDEX Torch Applied Bitumen Membranes and ARDEX SBS Self Adhesive Membranes where no existing cavity flashing or dampcourse has been installed.

PRODUCT DESCRIPTION

3 metre lengths of specially formed aluminium strip.

INSTALLATION

The ARDEX Pressure Seal is mechanically fixed through the top edge of the membrane at 500mm intervals. The uppermost edge of the strip is then sealed with ARDEX Butynol Sealant along the profile provided.

PACKAGING

Packs containing 10 x 3 metre lengths.

ARDEX PROTECTION BOARD

ARDEX Protection Board is a fluted polyethylene board designed to be used after the membrane installation and prior to backfilling to protect the membrane from mechanical damage during the backfilling operation.

SIZE

1,800 X 1,200mm fluted boards.

PACKAGING

Packs of 25 boards.

ARDEX SPITTER DOWNPIPE CONNECTOR

After the ARDEX Spitter Outlet has been trimmed to the correct length the Downpipe Connector links the Spitter Outlet to the drainage pipe for a neat easy connection.

ARDEX VAPOUR VENTS

Substrate ventilation should be used to release moisture trapped under ARDEX Butynol or ARDEX Bitumen Sheet membranes. Substrate ventilators are used for this purpose. One way substrate ventilators prevent moisture vapour build up and one should be installed every 90 square metres. Not designed to ventilate roof cavities.
Butynol®
Roofing
SPECIFICATION

A synthetic rubber with properties which resist ageing from heat, sunlight and ozone. It has excellent gas impermeability and toughness and remains flexible at low temperatures.

Butynol is manufactured by combining the petroleum gases isobutylene and isoprene at the extremely low temperature of – 100°C. (Rubber Technology–Morton)

Butynol is marketed by ARDEX as a warranted roofing and tanking product and fixed by their trained and experienced Approved Applicators.

BUTYNOL MATERIAL SPECIFICATIONS

Our requirements for long term warranty necessitate that Butynol meets these typical technical requirements:

- Specific Gravity to ASTM D297 1.20±0.05
- Hardness IRHD to ASTM D1415 65±5
- Tensile Strength to ASTM D412 8.3 MPa min
- Modulus at 300% elongation to ASTM D412 4.15 MPa min
- Elongation at break to ASTM D412 300% min
- Heat Ageing (7 days at 115°C) Tensile Retention to ASTM D412 70% min
- Elongation Retention to ASTM D412 70% min
- Tear Strength to ASTM D624 26kN/m
- Ozone Resistance to ASTM D1149 No visible cracks (7 days at 40°C in 50pphm ozone)
- Water Permeability to ASTM E96-92
  - (mg/m².h at 35mm Hg) 2.9 at 32°C
  - (mg/m².h at 55.32mm Hg) 15.3 at 40°C

BUTYNOL RESISTS

Tearing, flex cracking, bubbling and abrasion. It is extremely strong, has a long life and is versatile.

BUTYNOL IS PACKAGED

In rolls of nominal 1.4m width and 17.86m long. Each roll is packed in polythene wrapper trademarked BUTYNOL with thickness identified. Coverage 25m² except 2.25mm gauge which is 12m².

Gauges available are:

- 1.0mm black. Weight: nominal 30kg
- 1.5mm black. Weight: nominal 45kg
- 2.25mm black. Weight: nominal 32kg
- 1.2mm dove grey. Weight: nominal 30kg
- 1.5mm all colours. Weight: nominal 47kg

ADHESIVES AND SOLVENTS

Specially formulated for all Butynol applications. Supplied in 20L steel pails (approx. 20kg). 4 and 1 litre cans.

SEAM TAPE

Uncured Butyl Cold Gum tape supplied by ARDEX. Supplied in 50mm x 30.5m rolls (6 to a carton). Used for general lap bonding and laps likely to be subject to periodic ponding.

BUTYNOL SEALANT

Available in tubes for caulking guns.

DETAIL TAPE

A Malleable exterior tape for flashing exterior corners etc. 150mm x 30.5m rolls.

FLASHING TAPE

A malleable tape for moulding in gussets, pipe flashings and awkward situations. Supplied in widths of 50-100mm x 5m. Flashing tape must not be left exposed. A Cover strip of Butynol must be applied over flashing tape to finish.

K Values on 1mm Butynol sheeting

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<thead>
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<th>Vapour Flow Resistance (MN/m²)</th>
<th>Mean Vapour Flow Rate (MNs/g)</th>
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<tr>
<td>D2789 A</td>
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</tr>
<tr>
<td>D2789 B</td>
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<td>0.019</td>
</tr>
<tr>
<td>D2789 C</td>
<td>3532</td>
<td>0.005</td>
</tr>
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</table>

Note: Interesting comparable figures for water permeability are – Polythene 156, Asphalt 1830, P.V.C. 4900.

Conductivity Data on 1mm Butynol sheeting

Resistance/m² Ω /m² = 0.6816 on 9.3 volts.

Seam Tape performance

Tests on the seam tape bonding method, by an independent testing laboratory, have shown average values equivalent to 90% of unwelded material.

It is considered impossible for the test methods used to be duplicated in normal service ie. 400% elongation.

BUTYNOL PROTECTS

Against water, moisture vapour, gases, sun, ozone, frost, acids, chemicals and bacteria.
in conjunction with vent tapes. Tapes should be laid in  
a grid pattern spaced at 600mm venting to the roof  
perimeter. One way substrate ventilators prevent moisture  
vapour build up and one should be installed every 90  
square metres. Not designed to ventilate roof cavities.  
(Refer Diagram page 2/16)

**PLYWOOD TREATMENT**

In normal use plywood substrate does not require  
treatment when used under Butynol. NZS 3602:1995  
Table 2B Amendment No. 1 August 1996.

**DURABILITY**

Butynol when fixed according to ARDEX instruction will  
meet the NZBC requirements of B2.3.1(b) 15 years.  
Case history of the product in use show applications  
in excess of 30 years without any additional protection.

**EXTERNAL MOISTURE**

New Zealand Building Code Acceptable Solution.  
E2/AS1 requirements recommend membrane clad roofs  
have a minimum pitch of 1.5°.

**DAMP AND WEATHERPROOFING**

The Building Code of Australia Deemed-to-Satisfy  
Provisions F1.9 and F1.10 are met by Butynol as an  
acceptable dampproof course. Butynol when used as  
described in ABSAC Technical Opinion 188 August 1994  
complies with the Building Code of Australia Deemed-to-  
Satisfy Provision F1.7(b) and Acceptable Construction  
Manual Part 3.8.1.0, or AS 3740 for “Water Proofing of  
Wet Areas in Buildings”.

**FIRE RATING**

The Butynol roofing system must be considered  
combustible but may be used on buildings for all purpose  
groups, subject to the requirements of NZBC Acceptable  
Solution C/AS1 Part 7, Paragraph 7.11.1  
When used for roofs in Purpose Groups SC and SD a non-  
combustible substrate or timber 18mm thick is  
acceptable. Refer 7.11.1.  

Building Code of Australia allows use in all building types  
under Specification C1.10, Clause 7(e), except in bush fire  
prone areas.

**PRODUCT WARRANTY**

Butynol when laid by a ARDEX Approved Applicator is only  
covered for up to 20 years if a written material warranty  
has been requested and provided.

**WORKMANSHIP**

A warranty for workmanship shall be provided by the  
Approved ARDEX Applicator. The period of the  
workmanship warranty shall be determined by the  
Approved Applicator.

**ADHESIVES AND SOLVENTS**

**FOR USE WITH BUTYNOL**

**ARDEX WA 98** – The standard contact brushing, spray  
grade and rolling adhesive for fixing to the substrate and  
for laps not subject to periodic ponding.  
**ARDEX WPM 299 Seam Primer** – A Water resistant  
primer adhesive, used with seam tape for general lap  
bonding.

Note: **Temperature and Humidity**  
The evaporation of any solvent adhesive system causes  
a drop in temperature at the interface. At times of high  
humidity this can result in a micro molecular water layer  
at the interface which will result in a failure to bond,  
falsey attributed to adhesive failure. Fixing should not  
proceed under these circumstances.

**NOTES**

1. In cases of extreme absorbency, a priming coat of full  
strength ARDEX WA 98 Adhesive may assist water  
shedding and absorption. However, a follow up of full  
strength adhesive for full bonding should not be  
proceeded with under four hours, thus allowing full  
evaporation of solvents absorbed into the substrate.  
Primers must  
be time dried not touch dried.

2. As new substrate materials continually appear  
on the market, consult ARDEX for approval of their  
use with Butynol.

3. Where periodic ponding is likely and on roofs with a  
slope of 5° or less, ARDEX Seam Tape and ARDEX  
WPM 299 Seam Primer must be used on all joints.

4. Laps can be formed on roofs with a pitch greater than  
5° with normal brush grade substrate ARDEX WA 98  
Adhesive. Laps must be solvent wiped with ARDEX  
WA 985 solvent prior to applying adhesive. They  
must however at all times drain dry and have no  
periodic ponding.

5. Do not use in temperatures less than 6°C.

**CAUTION**

All Adhesives and Solvents are HIGHLY FLAMMABLE.
**BUTYNOL SEALANT**

**Description**
Butynol Sealant has been specially designed and formulated for sealing Butynol flashings into chases as found in Building and Construction. Butynol Sealant gives excellent adhesion and sealant to both Butynol Membranes and building substrates. Available in black or grey.

**DANGER**
Gives off highly flammable vapour. Keep well away from heat, sparks and open flame. Keep closed when not in use.

**AVOID BREATHING VAPOUR**
Use with adequate air flow.

**DIRECTIONS**
Once the Butynol Membrane has been fixed into place apply an even bead of Butynol Sealant into the chase, which should be properly prepared by ensuring all surfaces are clean, dry and sound. Tool the sealant bead to ensure there are no voids, gaps or air pockets and that the bead has a neat and flush finish. Cut the cartridge nozzle to give the desired aperture and angle. For best results the sealant should be gunned by pushing the cartridge nozzle forward during application.

**TACK FREE TIME:**
Approx. 24 hours, depending on temperature conditions, can be painted within 4 to 6 days.

**FULL CURE TIME:**
4-6 days depending on temperature conditions.

**CLEAN UP:**
Clean tools, etc., with mineral turps.

**COLOUR:**
Black in 375ml tubes.

**Also available for Butynol**
Seal ‘n’ Flex Polyurethane 600ml sausages Colours - black and grey Silaflex MS 300ml tubes Colour - grey

**BUTYNOL RUBBER ROOFING SPECIFICATION**

**1. PRELIMINARY**
Refer to the Preliminary and General Clauses of this specification and to the General Conditions of Contract which are equally binding on all trades. This section of the specification shall be read in conjunction with all other sections.

**2. SCOPE**
This section of the contract consists in general of the provision and laying of all the Butynol rubber, for the roofs, decks, gutters and flashings on the buildings. Refer to Clause 12 hereafter for Extent of Work.

**3. WORKMANSHIP**
The whole of the work shall be carried out by skilled tradesmen using adequate and proper equipment and methods in accordance with best trade practice, and following the specifications methods and recommendations as laid down by the manufacturers.

**4. SUB-CONTRACTORS**
The work included in this section of the contract shall be carried out by a firm of roofing experts conversant with and specialising in the supply and fixing of this material and shall be a firm approved by ARDEX and the architects.

**5. GUARANTEE**
The Butynol roofing contractor shall furnish to the main contractor a written guarantee that the Butynol rubber roofing, guttering and flashing together with the adhesives employed will remain watertight and free from any defects that permit the entry of water for a period of twenty (20) years after the installation of the product. Such guarantee shall cover the making good of any defects that may occur from defective materials. The roofing contractor shall obtain from the manufacturer of Butynol rubber sheeting and the adhesives a guarantee covering their materials and shall deliver the guarantee to the Architect. The Butynol Installer shall during the course of this subcontract and at completion make a thorough inspection of the works in order to undertake to furnish a written statement to the main contractor to the effect that all the Butynol roofing, gutters and flashings have been inspected and passed as being fixed strictly in accordance with ARDEX recommendations and instructions and best trade practices.

**6. MATERIALS**

**6.1 Butynol Rubber**
(a) Shall be 1.0mm thick standard Black Butynol rubber to all roof surfaces, gutters and fascias and walk out decks where membrane is to be overlaid with tiles.
(b) Shall be 1.5mm thick Butynol to all walk out decks.

**6.2 Adhesives**
Shall be as recommended by ARDEX specially formulated for Butynol rubber and suitable for the particular application and the relevant temperature and conditions applicable. Generally the normal adhesive for substrate
and lap bonding shall be ARDEX WA 98 Adhesive. Primer for lap bonding shall be ARDEX WPM 299 Seam Primer used in conjunction with ARDEX seam tapes. When conditions are experienced that are outside the temperature and/or moisture ranges recommended by the manufacturers for the above standard adhesives work will cease.

6.3 Seam Tapes
Shall be as supplied by ARDEX and shall be uncured Butyl Cold Gum tape (Refer ARDEX seam tape). For general lap bonding the tape shall be 50mm in width.

6.4 PVC Tape
All Plywood joints shall be taped with an approved PVC pressure sensitive self adhesive tape of 25mm width or ARDEX approved alternative.

7. ROOF DECKINGS
Shall be 1.5mm thick Butynol for all deck surfaces. All decks to which Butynol is to be fixed shall be clean, smooth, dry and free from dirt, grit or sharp objects. All decks, concrete or sheet materials shall be primed with 50/50 ARDEX WA 98 and ARDEX WPM 290 solvent. The Butynol roofer shall co-operate with the other trades laying the decking to ensure that the final surface is in first class condition for the laying of the Butynol rubber roofing.

On concrete decks arrange to prime the decks after initial curing again to immediately cover by roofing or the provision of temporary waterproof covers. The Butynol roofer shall check the deck before laying any Butynol to ensure that the surface is completely sound, screw heads flush, sheets spaced to provide for hydro expansivity, and if plastered concrete that there is no drumminess.

8. LAYING OF BUTYNOL ROOFING
It is the responsibility of the Applicator to ensure that the surface to be covered by the Butynol is in fit and proper condition, suitable in all respects for the laying of the material. Tape all joins in substrate sheets with 25mm wide PVC pressure sensitive tape or ARDEX approved alternative. Apply adhesive to the substrate and the underside of the Butynol rubber sheeting by brush, spray or an approved type roller at a spreading rate of generally not less than 2.5 square metres per litre. Leave to tack dry observing the minimum and maximum allowable times set by the adhesive manufacturer, before bonding the two surfaces together. Lay sheeting by drawing back halfway either longitudinally or transversely. Thoroughly roll or work over the surface of the sheet to exclude all air and to obtain a full bond. In general - all Butynol sheeting shall be laid out on the roof to ‘relax’ the sheeting before fixing. A period of at least 20 minutes is usually required. Do not finally position sheeting with a tension exceeding 2%. All sheeting to the roofs shall be laid out as indicated on the roof plan, ie, at across the slope to an even Patter. End laps shall be avoided wherever possible but where necessary to the Architects approval. All roofs and/or gutters shall be “lap bonded” at all joints. Lap bonding shall be with ARDEX Seam Tape and ARDEX Seam Primers.

Bonding Laps with ARDEX Seam Tape and ARDEX WPM 299 Seam Primer
Following laying of the Butynol the laps must be sealed. Roofs with a pitch of less than 5° and all guttering and areas subjected to periodic ponding require special lap bonding.

1. The top lap is positioned and the bottom sheet marked to indicate the edge of the top sheet.

2. The top sheet is folded back.

3. The ARDEX WPM 299 Seam Primer is then applied to the Butynol in the area marked on the bottom sheet and 50mm in from the edge on the top sheet. The ARDEX WPM 299 Seam Primer is applied to the mating surfaces using a synthetic scrubbing pad. Scrubbing pads should be replaced as they become dirty. Allow the primer to become ‘dry to the touch’.

4. Position and unroll the 50mm ARDEX Seam Tape along the seam. The edge of the release paper should be aligned to the mark on the bottom membrane sheet.

5. Roll the length of the seam with the release paper still in place.

6. Remove the release paper from the ARDEX Seam Tape by pulling at a 45° angle away from the seam. Keep the release paper low to the roof surface as it is removed.

7. Fold into place the primed edge of the top sheet.

8. Roll the completed seam.

9. TILING OVER BUTYNOL
To direct fix tiles to Butynol, ABA Optima two part adhesive should be used. Ensure the Butynol surface is clean and dry before applying the adhesive. All laps must have seam tape.

10. PROTECTION OF LAID BUTYNOL SHEETING
The Butynol roofing contractor shall ensure that his fixers only work on the Butynol roofing with soft sole shoes. The Butynol roofer shall co-ordinate with the main contractor who shall ensure that any other trades who work over the completed roof wear soft sole shoes.

Upon completion of each area the roofer shall get the main contractor to inspect the area and the main contractor will sign off that the area was free from any defects or damage. It is then the responsibility of the main contractor to ensure the Butynol roofing is in no way damaged by other trades.

11. COMPLETION
On completion of this roofing carefully and thoroughly clean off and remove all scraps and other rubbish from finished surfaces and leave in tidy order with the whole roof waterproof and in first class condition.

12. EXTENT OF WORK
Observe the foregoing specification and supply and lay Butynol rubber sheeting to all roofs, decks, gutters and flashings as shown and detailed on the drawings.

Failure to comply with the above specifications will result in all warranties being null and void.

Failure to comply with the above specifications will result in all warranties being null and void.
**SUBSTRATE SPECIFICATION**

All surfaces to which Butynol is to be fixed shall be clean, smooth, dry and free from sawdust, grit or sharp objects. Plywood must be sanded one side and free from knots. CD Grade Construction Plywood as specified in NZS 3602:1995 Table 2B Amendment No. 1 August 1996, and in conjunction with Australian/New Zealand Standard 2269:1994. Sarking should be overlaid with Plywood, giving an ideal laying surface.

For normal conditions the Plywood substrate should be 17.5mm and fixed with 3mm gaps between all sheets, and counter sunk screw fixed to Plywood manufacturer’s specifications. Fixing centres: edges 150mm, intermediates 200mm. Note that there may be a requirement for closer screwing of the Plywood substrate to suit the particular situation. Plywood is to be laid with the face grain at right angles to the supports. Where roofs are over damp conditions adhesive fixing should be used with screws. Plywood must have sufficient ventilation. Insufficient ventilation will require treatment in line with NZS 3602:1995 Table 2B Amendment No. 1 August 1996. Refer to Plywood manufacturers for screw specification. Staples and nails are not suitable in any circumstances.

**NOTE:** The use of LOSP (Light Organic Solvent Preservative) treated Plywood or composite boards of any type or density must not be used under Butynol in any circumstances or conditions.

Joins in plywood sheets are to be taped using 25mm Polyethylene tape. Plywood substrates with right angled internal corners should have a triangular fillet 50mm x 50mm screwed to each corner. External corners should be rounded to reduce wear on edges and allow an improved finish. Downpipe outlet holes should be drilled through timber boxed gutters and decks before installation. Butynol must have a 150mm minimum upstand on decks, therefore provision must be made for timber backing. It is important to leave doors and windows out until Butynol has been fixed. A steel trowel finish is required on all concrete surfaces. New concrete must be cured a minimum of 28 days prior to Butynol installation.

If any patch or filling of substrate is required it is best to use a fibreglass material, or an ARDEX floor laying compound to resist the heat absorbed through the black Butynol, so it will not break up causing bubbling.

Pumice surfaces are not recommended as a suitable substrate for Butynol. Light weight concrete surfaces require saw cut grooves for venting purposes.

On large areas of Plywood, sheets may be preprimed before being screwed to roof framing, to speed the application of the Butynol. Temperature on the substrate surface must not drop below 6°C for adhesives to go off.

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**LAYING SPECIFICATION**

The Sub contractor for the work called for in this trade will be a Company or Person Accredited by ARDEX. The Accredited Applicator (hereafter called the Applicator) shall examine all drawings and provide for the flashing, caulking and sealing of all vents, stacks and pipes penetrating the roofing membrane. Also all flashings at walls, parapets, verges, gutters etc., unless otherwise instructed in the specifications.

The surface to which Butynol is to be fixed shall be clean, smooth, dry and free from sawdust, grit or sharp objects. Membrane laying shall not start until defects have been corrected.

It is the responsibility of the Applicator to ensure that the surface to be covered by the Butynol is in fit and proper condition, suitable in all respects for the laying of the material.

On completion the Applicator will provide the owner with a Workmanship Warranty and obtain from ARDEX a Materials Warranty.

Failure to comply with the above specifications will result in all warranties being null and void.

**LAYING THE BUTYNOL**

Before applying the Butynol, it shall be unrolled for twenty minutes to relieve stresses induced by manufacture and storage. The Butynol sheet shall be set out in the exact position in which it will be finally required and while it is held in place, it shall be folded back lengthwise to expose half the underside. To the now exposed underside and the area of roof also left exposed, apply an even coat of ARDEX WA 98 Adhesive. When the adhesive has become touch dry, work the sheet back into its original position avoiding wrinkles and the inclusion of air bubbles. Repeat the process with the other half of the sheet and when completed, roll the whole sheet with hand press rollers or the like. When applying the next sheet, it shall be lapped over the first sheet by 50mm. All turn ups and downs shall be neatly formed and cut to a straight line if necessary. Butynol shall not be laid under tension. When the whole area has been covered or as work progresses, the applicator has to seal the laps.
**BUTYNOL LAYING METHOD**

**STEP 1**
Accurately place sheet. Mark spacing with chalk line.

**STEP 2**
Fold back half sheet. Apply adhesive to both faces.

**STEP 3**
After flash off, fold membrane into place. Roll thoroughly.

**STEP 4**
Treat 2nd half of Butynol similarly.

**BONDING THE LAPS**

Roofs with a pitch of less than 5°, all coloured membranes and all guttering and areas subjected to periodic ponding require special lap bonding.

All coloured membranes, irrespective of pitch require special lap bonding.

1. The top lap is positioned and the bottom sheet marked to indicate the edge of the top sheet.
2. The top sheet is folded back.
3. The ARDEX WPM 299 Seam Primer is then applied to the Butynol in Butynol Guttering the area marked on the bottom sheet and 50mm in from the edge on the top sheet. The ARDEX WPM 299 Seam Primer is applied to the mating surfaces using a synthetic scrubbing pad. Scrubbing pads should be replaced as they become dirty. Allow the primer to become ‘touch dry’.
4. Position and unroll the 50mm ARDEX Seam Tape along the seam. The edge of the seam tape should be aligned to the mark on the bottom membrane sheet. The see-through film makes this very simple.
5. Roll the length of the seam with backing film still in place.
6. Remove the backing film from the ARDEX Seam Tape by pulling at a 45° angle away from the seam. Keep the release paper low to the roof surface as it is removed.
7. Fold into place the primed edge of the top sheet.
8. Roll the completed seam.
Black Butynol and roofs with minimum pitch of 5° and sufficient fall to prevent periodic ponding may be formed using the sheet bonding adhesive ARDEX WA 98. All laps must be wiped with ARDEX WA 290 solvent prior to bonding.

**FORMING LAPS FOR GUTTERS**
Laps are most important in gutter work and should be and formed using ARDEX seam tape and ARDEX WPM 299.
All internal boxed gutters can be easily formed to any shape or size using Butynol over any specified substrate.

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**CROSS SECTION OF RAINHEAD**

**RECOMMENDED BATTEN PROFILE**

**CROSS SECTION OF DROPPER**

Example of a 1400mm sheet of Ardex Butynol dressed over battens at 1200mm centres

BUTYNOL is glued into angled chase and finished with Butynol Sealant.
FLASHING INTO CONCRETE WALLS

EXTERNAL CORNERS

**Step 1**
Bond 100mm flashing or detail tape to corner as shown.

**Step 2**
Bond BUTYNOL to deck and up wall 150mm minimum. Cut sheet from corner at 45° as shown.

**Step 3**
Cover corner point with layer of detail tape.  
*NOTE: Fillets must be used on all internal corners.*

INTERNAL CORNERS

**Step 1**
Without cutting BUTYNOL simply fold a ‘pig’s ear’ corner as shown. The angle fold should be behind the main sheet. 
*NOTE: Fillets must be used on all internal corners.*

FLASHING - EXISTING PIPES

**Step 1**
Under flash pipe with 100mm BUTYNOL flashing tape.

**Step 2**
Bond BUTYNOL to 100mm past pipe.  
N.B. When flashing black BUTYNOL use black detail tape.

**Step 3**
Bond continuation of BUTYNOL to overlap base sheet and beyond pipe 100mm.
Step 4
Apply another collar of flashing tape, then bond final 70mm cover strip. DO NOT STRETCH STRIP.

N.B. Flashing tape MUST NOT be left exposed. Cover strip must be BUTYNOL. When detail tape is used a cover strip of BUTYNOL is not required.

FLASHING - NEW PIPE

Step 1
Pipe is raised through smaller diameter hole in BUTYNOL, forcing edge upwards to create upstand

Step 2
After pulling pipe down approximately 1 cm to sharpen corner, tape upstanding BUTYNOL to pipe using ARDEX WA 98 Adhesive and detail tape. Upstand may be mechanically secured using a steel band.

N.B. If flashing tape is used it MUST NOT be left exposed. A cover strip of BUTYNOL must be applied over the flashing tape to finish.

TAPING SUBSTRATE SHEET

All joints between substrate sheets of Plywood should be taped to prevent stressing of the BUTYNOL in case of marked timber movement.

BOXED GUTTER AND PARAPET DOWNTURN
FORMING DOWNTURN IN GUTTER FOR CIRCULAR DOWNPIPE

Cut P.V.C. pipe should be compressed into smaller diameter, then coated with ARDEX WA 98 Butynol Adhesive and inserted in Downpipe finishing just below flush. Finished with a bead of Butynol Sealant.

FINISHING OVER A GUTTER

ONE WAY SUBSTRATE VENTILATOR
PVC OR ALUMINIUM

INTERNAL ROOF DRAIN

Butynol Roofing
Turn Butynol into ring
50mm Seam tape
Screwed grate in clamping ring
Sewn Seam tapes

Cast Iron Drain Unit
(Structural Base R.C. etc.)

Butynol
50mm Seam tape over ring edge
Outlet grate cover
Inner clamping ring
50mm Seam tape turned down into outlet base cone before roof sheeting is turned into cone & clamped tight

Butynol Sealant
Bead around rim
Fillet

Base cone flange
Line of Seam tape to be installed
Apply adhesive to substrate base in required stages

(Section)

(Cut-away view)

Approved One Way Roof Vent
Butynol Roofing
Detail Tape
Butynol Patch Forming Flange

Adhesive on substrate & vent surface

Vent installed over intersection of vent tapes on concrete substrate
Vent installed over intersection of 3mm gap between Ply substrate sheets.

Butynol Roofing
Vent Tape
Concrete Substrate

Saw cuts assist drying of wet substrate and vented membrane turnup

PLY SUBSTRATE
CEILING INSULATION
Loose Laid Application of Butynol Roofing

Materials used shall be as previously specified. When the surface is suitably prepared a large fully vulcanised Butynol sheet or sheets can be unrolled and spread over the prepared area and allowed to remain in this position for approximately one hour to relieve stresses induced by manufacture and storage. If necessary for ease of handling, these sheets can be supplied in varying sizes and vulcanised on site using an ARDEX vulcanising machine or using seam tape with ARDEX WPM 299 seam primer.

The Butynol sheet shall be set out in the exact position in which it will be finally required and whilst it is held firmly in place it shall be folded back at least one metre from the roof’s surrounding parapet or wall to allow the application of adhesive to that area of the exposed substrate.

ARDEX WA 98 Adhesive may be applied to the substrate and the corresponding area of BUTYNOL sheeting which may then, when the adhesive is touch dry, be worked back into its required position avoiding wrinkles and the inclusion of air bubbles.

Upon completion of the detail work, parapets, drains and rainheads etc a layer of rounded gravel 30-40mm should be applied up to 50mm deep, over a layer of Geo Textile Fabric for protection of the Butynol sheet.

Care must be taken at outlets to ensure the ballast cannot enter or cause a blockage that prevents rainwater from leaving the roof area. Maintenance paths should be created to air-conditioning or roof plant with concrete tiles. Effects on the membrane in areas of high wind can be eliminated by stabilising the ballast with cement. Dry cement should be broadcast over the 30-40mm gravel with a broad mouth shovel and left to hydrate or lightly sprayed with water to set off.

If possible a water test should be carried out prior to the application of ballast.

Note: Minimum pitch 1.5° to comply.
Butynol Installation
Associated Products

ARDEX WPM 290 Solvent
ARDEX WA 98 Adhesive
ARDEX Seam Tape
ARDEX Pressure Seal
ARDEX Seam Primer
ARDEX Butynol Sealant
ARDEX WPM 290 SOLVENT
(SHELTER WA 98 SOLVENT)
SOLVENT FOR ARDEX WA 98 ADHESIVES
A high aromatic hydrocarbon solvent designed for general purpose clean-up and preparation procedures prior to the installation of ARDEX Butynol Membranes.

PRODUCT DESCRIPTION
A synergistic blend of high aromatic hydrocarbon solvents.

PACKAGING
20 Litres

SHELF LIFE
2 years

COVERAGE
Not applicable

DRYING TIME
Approx. 20-30 minutes at @ 23˚C.

APPLICATION
For preparation of Butynol membranes surfaces should be cleaned by scouring with ARDEX WPM 290 (Shelter WA 98) solvent.

CLEAN UP
Wash skin that has come in contact with ARDEX WPM 290 (Shelter WA 98) solvent with warm water and detergent. Application of skin moisturisers is recommended after use.

SAFETY PRECAUTIONS
ARDEX WPM 290 is hazardous and a dangerous goods. It is highly flammable and harmful if swallowed. It is irritating to the eyes and skin and may cause sensitisation by skin contact. Keep container tightly closed and in a well ventilated place. Take off immediately all contaminated clothing. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

ARDEX WA 98 ADHESIVE
(ARDEX WA 98 ADHESIVE)
BUTYNOL ADHESIVE
Specially formulated adhesive for all Butynol applications including broadspan bonding and lap jointing in non-aggressive or non-immersed condition exposure.

Supplied in 20L steel pails (approx. 20kg).
4 and 1 litre cans.

The standard contact brushing, spray grade and rolling adhesive for fixing to the substrate and for laps not subject to periodic ponding.

SAFETY PRECAUTIONS
ARDEX WA 98 is hazardous and a dangerous goods. It is highly flammable and harmful if swallowed. It is irritating to the eyes and skin and may cause sensitisation by skin contact. Keep container tightly closed and in a well ventilated place. Take off immediately all contaminated clothing. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

ARDEX SEAM TAPE
ARDEX Seam Tape is an uncured butyl cold gum tape for use in conjunction with ARDEX Seam Primer for bonding Butynol lap joints. ARDEX Seam Tape is suitable for laps that are likely to be subjected to periodic ponding only – not suitable for continuous immersion conditions.

For continuous immersion joints must be fusion welded.

Supplied in 50mm x 30.5m rolls (6 to a carton).

ARDEX PRESSURE SEAL
Designed to seal the edges of ARDEX Butynol or ARDEX Torch Applied Bitumen (Shelterbit) Membranes and ARDEX SBS Self Adhesive (Shelterseal) Membranes where no existing cavity flashing or dampcourse has been installed.

PRODUCT DESCRIPTION
3 metre lengths of specially formed aluminium strip.

INSTALLATION
The ARDEX Pressure Seal is mechanically fixed through the top edge of the membrane at 500mm intervals. The uppermost edge of the strip is then sealed with ARDEX Butynol Sealant along the profile provided.

PACKAGING
Packs containing 10 x 3 metre lengths.
ARDEX WPM 299 SEAM PRIMER

A water resistant primer adhesive, used with seam tape for general lap bonding.

ARDEX WPM 299 Seam Primer is suitable for laps that are likely to be subjected to periodic ponding only – not suitable for continuous immersion conditions. For continuous immersion joints must be fusion welded.

Important: Temperature and Humidity

The evaporation of any solvent adhesive system causes a drop in temperature at the interface. At times of high humidity this can result in a micro molecular water layer at the interface which will result in a failure to bond, falsely attributed to adhesive failure. Fixing should not proceed under these circumstances.

NOTES

1. In cases of extreme absorbency, a priming coat of full strength ARDEX WA 98 adhesive may assist water shedding and absorption. However, a follow up coat of full strength adhesive for full bonding should not be proceeded with under four hours, thus allowing full evaporation of solvents absorbed into the substrate. Primers must be time dried not touch dried.

2. As new substrate materials continually appear on the market, consult ARDEX for approval of their use with Butynol.

3. Where periodic ponding is likely and on roofs with a slope of 5° or less, ARDEX Seam Tape and ARDEX WPM 299 Seam Primer must be used on all joints.

4. Laps can be formed on roofs with a pitch greater than 5° with normal brush grade substrate ARDEX WA 98 adhesive. Laps must be solvent wiped with ARDEX WPM 290 solvent prior to applying adhesive. They must however at all times drain dry and have no periodic ponding.

5. Do not use in temperatures less than 6°C.

FLAMMABILITY

ARDEX WPM 299 Seam Primer gives off highly flammable vapour. Keep well away from heat, sparks and open flame. Keep closed when not in use.

LIMITATIONS

Primer should be used with appropriate mask and breathing apparatus in areas of poor ventilation and/or air flow.

SAFETY PRECAUTIONS

ARDEX WPM 299 is hazardous and a dangerous goods. It is highly flammable and harmful if swallowed. It is irritating to the eyes and skin and may cause sensitisation by skin contact. Keep container tightly closed and in a well ventilated place. Take off immediately all contaminated clothing. In case of contact with eyes, rinse with plenty of water and contact a doctor or Poisons Information Centre.

ADDITIONAL INFORMATION IS LISTED IN THE MATERIAL SAFETY DATA SHEET.

ARDEX BUTYNOL SEALANT

Description

ARDEX Butynol Sealant has been specially designed and formulated for sealing Butynol flashings into chases as found in Building and Construction. Butynol Sealant gives excellent adhesion and sealant properties to both Butynol Membranes and building substrates.

FLAMMABILITY

ARDEX Butynol Sealant gives off highly flammable vapour. Keep well away from heat, sparks and open flame. Keep closed when not in use.

DIRECTIONS

Once the Butynol Membrane has been fixed into place apply an even bead of Butynol Sealant into the chase, which should be properly prepared by ensuring all surfaces are clean, dry and sound. Tool the sealant bead to ensure there are no voids, gaps or air pockets and that the bead has a neat and flush finish.

TACK FREE TIME

Approx. 24 hours, depending on temperature conditions, can be painted within 4 to 6 days.

FULL CURE TIME

4-6 days depending on temperature conditions.

CLEAN UP

Clean tools, etc., with mineral turpentine.

COLOUR

Black

LIMITATIONS

Sealant should be used with appropriate mask and breathing apparatus in areas of poor ventilation and/or air flow.

FIRST AID

Swallowed: Give water to clean mouth. Do not induce vomiting.

Skin: Remove contaminated clothing. Wash skin thoroughly with soap and water.

Eyes: Hold open and flood with water for at least 15 minutes. Inhalation: Remove patient to fresh air. If breathing is difficult administer oxygen.

Seek medical attention promptly.
**SUBSTRATE VENTILATION**

Substrate ventilation should be used to release moisture trapped under the Butynol. Substrate ventilators are used for this purpose. One way substrate ventilators prevent moisture vapour build up and one should be installed every 90 square metres. Not designed to ventilate roof cavities.

**ARDEX PRESSURE SEAL**

Designed to seal the edges of ARDEX Butynol or ARDEX Torch Applied Bitumen Membranes and ARDEX SBS Self Adhesive Membranes where no existing cavity flashing or dampcourse has been installed.

**PRODUCT DESCRIPTION**

3 metre lengths of specially formed aluminium strip.

**INSTALLATION**

The ARDEX Pressure Seal is mechanically fixed through the top edge of the membrane at 500mm intervals. The uppermost edge of the strip is then sealed with ARDEX Butynol Sealant along the profile provided.

**PACKAGING**

Packs containing 10 x 3 metre lengths.

**ARDEX PROTECTION BOARD**

ARDEX Protection Board is a fluted polyethylene board designed to be used after the membrane installation and prior to backfilling to protect the membrane from mechanical damage during the backfilling operation.

**SIZE**

1,800 X 1,200mm fluted boards.

**PACKAGING**

Packs of 25 boards.