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# ARDEX WPM 444

## 4mm Plain Bitumen Membrane

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Compliant to AS4654.1

High puncture resistance

High mechanical characteristics

Reinforced APP Bitumen Membrane

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### PRODUCT DESCRIPTION

ARDEX WPM 444 is an APP (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 444 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.

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

- Excellent cold flexibility to -15°C
- High mechanical characteristics
- High puncture resistance
- Good elongation
- Will not decay

### USES

ARDEX WPM 444 is used as a single layer or multi layer tanking membrane in horizontal or vertical applications under a protective topping such as paving slabs or concrete.

- Non-accessible & accessible flat roofing
- Below ground environments
- Bridges, car parks and road structures

### SUBSTRATE PREPARATION

By way of mechanical methods and vacuum cleaning as necessary, remove all dirt, dust, curing compounds, oils, grease, surface sealers, and any other contaminants prior to application. Prepare surface to leave sound, clean, free from sharp edges, loose or other materials which may damage the membrane.

Damaged concrete between 2mm-30mm can be treated with ARDEX A46. Spalling concrete must be treated accordingly with the ARDEX Concrete Repair range such as ARDEX BR 345, please review the respective product data sheets on treating spalling concrete.

### SUBSTRATE PRIMING

Prior to the application of ARDEX WPM 444 all prepared concrete surfaces should be primed with ARDEX WPM 240 at a rate of 5m<sup>2</sup>-6m<sup>2</sup> per litre and allowed to dry. Coverage rate

will depend on the porosity of the substrate being treated.

NOTE: when used as an intermediate layer over a base sheet, ARDEX WPM 240 is not required. Ensure the previous base layer is clean, sound, dry, and free from sharp edges, loose or other materials which may damage the ARDEX WPM 444 membrane.

### INSTALLATION

A layer of ARDEX WPM 444 should be completely unrolled and aligned. Using a suitable pressure roller and suitable LPG torch equipment, the membrane is to be applied using appropriate application techniques.

The ARDEX WPM 444 must be fully bonded with minimum side laps of 100mm and minimum end laps of 120mm

ARDEX WPM 444 can be 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 WPM444 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 between 120°C - 150°C. The exact specification will depend on functional and economic requirements. Technical advice should be sought for suitable specification from ARDEX Australia.

### PACKAGING

Roll size: 1m x 10m

Roll weight: Approximately 40kg

Rolls per pallet: 23

### STORAGE

All rolls of ARDEX WPM 444 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.

### LIMITATIONS

ARDEX WPM 444 cannot be left UV exposed for extended periods. New concrete must be cured at least 28 days.

Before any substrate preparation, installation or finishing methods relating to ARDEX product are undertaken, please be aware of any potential risks and use appropriate PPE (personal protective equipment). This may involve contacting substrate manufacturers for Safety Data Sheets.

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### TECHNICAL DATA

CHARACTERISTIC	TEST METHOD	NOMINAL VALUES
Length	EN 1848-1	10m
Width	EN 1848-1	1m
Thickness	EN 1849-1	4mm
Watertightness (A)	EN 1928	60kPa
Shear Resistance Longitudinal Transverse	EN 12317-1	500 N/50mm 500 N/50mm
Tensile Strength Longitudinal Transversal	EN 12311-1	900 N/50mm 650 N/50mm
Elongation at Break Longitudinal Transversal	EN 12311-1	40% 45%
Resistance to Impact	EN 12691	1250mm
Resistance to Static Loading Method A	EN 12730	20kg
Tear Resistance Longitudinal Transverse 60kPa	EN 12310-1	170N 170N
Durability of Watertightness Against Chemicals	EN 1847 / EN 1928	60kPa
Flexibility at Low Temperature	EN 1109	-15°C
Flow Resistance at Elevated Temperature	EN 1110	130°C
Surface Finishes	Lower <sup>1</sup> Top <sup>2</sup>	Polymeric Film PE/PP Sand

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

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

### SAFETY DATA

Avoid contact with skin and eyes. In case of contact with the eyes rinse with running water until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Wear protective gloves, clothing, face and eye protection. Suspected of causing cancer. This product is combustible. On combustion, may emit toxic fumes of carbon monoxide (CO). Avoid inhaling dust/ fume/ gas/ mist/ vapours/ spray. If fumes or combustion products are inhaled remove from contaminated area. Ensure adequate ventilation during application. Check with your local Council regarding the disposal of contents. Call the Poisons Information Centre on 131 126 (AUS) and 0800 764 766 (NZ) or call a doctor if you feel unwell. At times updates can occur to data. To ensure you have the most current technical and safety information please consult the latest data sheets found on the product page at [www.ardexaustralia.com](http://www.ardexaustralia.com)

### GUARANTEE

ARDEX Australia Pty Ltd (“we” or “us”) guarantees this product (“our goods”) is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 20 Powers Road Seven Hills NSW 2147; Toll Free: 1800 224 070; Email: [technicalservices@ardexaustralia.com](mailto:technicalservices@ardexaustralia.com)) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a “consumer” under the Australian Consumer Law and to that extent you need to be aware that: “Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure”.

### 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 Standards. Our instructions and recommendations are only for the uses they are intended. Users are advised to confirm that this product is suitable for their application and conforms with the specifications of the system. 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 affect 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.

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This data sheet was issued in September 2023 and is valid for 3 years, in some instances a newer version may be published. Always refer to [www.ardexaustralia.com](http://www.ardexaustralia.com) for the latest technical data from ARDEX Australia Pty Ltd.