ARDEX WPM 813

Dual Component Protective Coating

Designed for vehicular traffic environments

Excellent impact and chemical resistance

Durable and hard wearing with fast curing time

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ARDEX WPM 813

Dual Component Protective Coating

PRODUCT DESCRIPTION

ARDEX WPM 813 is a dual component protective coating with excellent durability and hard wearing performance. ARDEX WPM 813 has been designed to be used as part of the ARDEX System for vehicular / heavy trafficable environments.

FEATURES

- Designed for vehicle traffic environments
- Excellent impact and chemical resistance
- Durable and hard wearing with fast curing time

USES

- Helipads
- Stadiums
- Loading docks
- Plant or mechanical rooms
- Car Park Decks & Wash Bays

Not suitable for environments with forklift and/or steel wheeled traffic. For other types of environments please contact ARDEX Technical Services (technicalservices@ardexaustralia.com).

SUBSTRATE PREPARATION

By way of mechanical methods and vacuum cleaning as necessary, remove all dirt, dust, curing compounds, oils, grease, surface sealers, existing coatings, and any other contaminents prior to membrane installation. Prepare surface to leave sound, clean, dry, free from sharp edges, loose or other materials which may damage the membrane. Concrete substrate compressive strength must be a minimum 25MPa.

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

Porous Substrates

Prior to applying ARDEX WPM 813, either ARDEX WPM 801 or ARDEX WPM 300 (HydrEpoxy) must be used as the substrate primer. It is crucial to follow the substrate preparation guidelines outlined in the recommended ARDEX primer product data sheet.

ARDEX WPM 801 must be overcoated within 24 hours to avoid potential intercoat contamination. Please refer to the ARDEX WPM 801 product data sheet for more information.

ARDEX WPM 300 (HydrEpoxy) must be allowed to cure for 24 hours minimum (@ 23ºC / 50% R.H.) prior to ARDEX WPM 813 application.

When masonry or concrete substrate moisture content is measured at greater than 80% relative humidity (ASTM F2170) or exceeds 15g/m²/24hrs (ASTM F1869), a minimum two coats of ARDEX WPM 300 (HydrEpoxy) must be the nominated primer. This is typically equivalent to 5% or greater moisture content from a digital non-destructive moisture meter, however Australian Standards must be followed.

Non-Porous Substrates

Mechanically abrade the metal or PVC surface and remove all loose debris. Solvent wipe surface with ARDEX WA 98 Solvent and allow to flash off. Prime prepared surfaces with ARDEX WPM 801, and allow to completely dry. The ARDEX WPM 801 once completely dry must be overcoated within 6 hours on non-porous applications.

If the ARDEX WPM 801 is left exposed longer than 6 hours, simply mechanically abrade and solvent wipe before recoating with ARDEX WPM 801.

For high density concrete substrates, the primer may be diluted by the addition of up to 10% (maximum) Xylene to increase substrate penetration.

DETAILING

Once the ARDEX primer has cured, apply ARDEX RA 040 polyurethane sealant to fill all prepared joints, cracks, internal junctions, drainage outlets, and seal around penetrations. All junctions and change of directions must have a 45º fillet in accordance to AS4654.

JOINT PREPARATION

During preparation all loose debris, dirt, dust, curing compounds, oils, grease, surface sealers, existing sealants, and any other contaminants must be completely removed.

All joints must be prepared accordingly and sealed with ARDEX RA 040 polyurethane sealant. Do not bond sealant directly to the bottom of the prepared joint. Use appropriate backer rod or self-adhesive bond breaker tape prior to sealant application to avoid three sided adhesion and to control sealant depth. Extrude the ARDEX RA 040 into the prepared joint, ensuring complete adhesion to the joint sides and avoiding air entrapment. Tool the sealant flush with the finished surface.

To accomodate potential movement, a suitable self-adhesive bond breaker tape may be placed over the cured sealant prior to ARDEX WPM 813 application.

Allow 3 - 4 hours (minimum) drying time of the ARDEX RA 040 prior to application of ARDEX WPM 813.

Refer to the ARDEX RA 040 product data sheet for joint capabilities.

CRACK PREPARATION

During preparation all loose debris, dirt, dust, curing compounds, oils, grease, surface sealers, existing coatings, and any other contaminants must be completely removed.

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Static cracks <1.0mm wide

After substrate priming, apply a 150mm wide strip of ARDEX WPM 813 over the prepared crack. Allow 4 - 6 hours to dry before proceeding with standard ARDEX WPM 813 application process over these treated cracks.

Static cracks >1.0mm

Grind out crack (6mm wide x 6mm depth minimum) with all dust, debris, and loose contaminents completely removed. Use appropriate backer rod or self-adhesive bond breaker tape prior to ARDEX RA 040 application to avoid three sided adhesion and to control sealant depth.

Other ARDEX structural crack rectification methods may include:

- ARDEX RA 56
- ARDEX RA 142
- ARDEX RA 144
- ARDEX Concrete Crack Lock

All suggested methods must be applied in accordance to their product data sheet found at www.ardexaustralia.com.au.

APPLICATION

ENVIRONMENT	RECOMMENDED TOTAL DFT	APPLICATION RATE (2 coats)
Car park (general areas)	2.5mm - 3.0mm	3.6kg/m² - 4.2kg/m²
Car park (high wear areas)	3.0mm - 3.5mm	4.2kg/m² - 4.8kg/m²
Car wash bays	3.0mm - 3.5mm	4.2kg/m² - 4.8kg/m²
Loading docks	3.0mm - 3.5mm	4.2kg/m² - 4.8kg/m²
Helipads	3.5mm - 4.0mm	4.8kg/m² - 5.4kg/m²

Mix each component individually with a suitable mixing paddle (500 - 600 rpm) for 2 - 3 minutes to form a homogenous state. Do not use the same mixing paddle for each component. Once each component has been mixed, combine at a 1:1 ratio by weight only - do not combine by volume. Pour contents of Part A and Part B into a suitable sized clean container, then begin mixing with a suitable mixing paddle (500 - 600 rpm) for 2 - 3 minutes to form a homogenous state.

Apply at no greater than 1.5mm (WFT) per coat, and each coat must be back rolled with spiked roller to remove any air entrapment and create uniform application. Multiple coats will be required depending on application environment. To avoid intercoat contamination, additional coats must be applied within 8 - 24 hours (@ 23ºC / 50% R.H.) - do not exceed 24 hours between coats. ARDEX WPM 813 can be applied by roller, brush, or notched trowel. Final dry film thickness will vary according to specific project requirements. Application without back rolling with spiked roller between coats increases the risk of product bubbling during the curing process.

SLIP RESISTANCE APPLICATION

The below suggested aggregates can be broadcast onto ARDEX WPM 813 during application to acheive a P5 slip rating. Whilst the second coat of ARDEX WPM 813 is wet, broadcast aggregate until refusal. After 24 hours (@23ºC / 50% R.H.) remove excess aggregate, then apply ARDEX WPM 823 (two coats minimum) to encapsulate aggregate and provide protective finish.

CLASSIFICATION - AS4586:2013 Appendix A	
TEST SAMPLE	NOMINAL VALUES
Dried kiln sand (size 0.1mm - 0.3mm)	P5
16/30 Sand	P5
Crushed Glass (size 0.45mm – 0.68mm)	P5

When adding aggregate to ARDEX WPM 823 (top coat) during application, please refer to the ARDEX WPM 823 product data sheet for more information.

PROTECTIVE TOP COAT

ARDEX WPM 813 must be overcoated with ARDEX WPM 823 to provide a UV stable, hard wearing protective system for vehicular / heavy traffic. Allow final coat of ARDEX WPM 813 to cure for 12 - 24 hours maximum before applying ARDEX WPM 823. Please refer to the ARDEX WPM 823 product data sheet for more information.

RECTIFICATION APPLICATION

Any necessary recoating due to membrane damage or exceeding the recommended application timeframe should be carried out in accordance with the following recommendation.

Wash surface with clean water under a low pressure spray. Ensure to remove all water residues and contaminents, and allow to completely dry. Solvent wipe the prepared surface with Xylene and allow to dry. Apply single coat of ARDEX WPM 801 to the prepared surface and allow to dry before. Apply ARDEX WPM 813, and each coat must be back rolled with spiked roller to remove any air entrapment and create uniform application. Thinner coats of ARDEX WPM 813 may be required depending on type of rectification. Allow the repaired area to fully cure before overcoating with ARDEX WPM 823.

COVERAGE

Approx 15m² per kit / per coat @ 1.5mm WFT

Coverage rate may vary depending on application technique.

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PACKAGING

36kg kit

Part A - 18kg

Part B - 18kg

CLEAN UP

Clean all equipment with solvent prior to the product drying. Once product has been allowed to cure, removal may require mechanical methods.

STORAGE

Packaging must be stored vertically, out of direct sunlight, away from sources of puncture and physical damage. Store in a dry place at 23°C and 50% R.H.

TECHNICAL DATA

CHARACTERISTICS	TEST METHOD	NOMINAL VALUES
Appearance (mixed)		Mid grey
Application Temperature		10ºC - 35ºC
Solids Content		95%
Mix Ratio (by weight only)		1:1
Pot Life (23ºC / 50% R.H.)		60 - 90 minutes
Shore Hardness A	ASTM D2240	80
Elongation	ASTM D412	380%
Bond Strength (23ºC / 50% R.H.)	ASTM D412	2.1N/mm²
Tensile Strength	ASTM D412	>8 MPa

SHELF LIFE

ARDEX WPM 813 has a shelf life of 12 months when stored in the original, unopened packaging in a dry place at 23°C and 50% R.H.

LIMITATIONS

Do not apply ARDEX WPM 813 if ambient temperature and or substrate temperature is below 10°C or above 35°C. ARDEX WPM 813 is not to be used as a stand alone product for trafficable environments. Exceeding the recommended application thickness greatly increases the risk of product bubbling during the curing process. Exceeding the recommended application timeframe between coats greatly increases the risk of adhesion issues. Do not exceed 24 hours before applying ARDEX WPM 823 (top coat). Do not add solvent to product. Do not apply if rain is imminent. Product not suitable for industrial applications i.e., factory floors. Application within windy conditions, or lack of surface preparation, or highly porous substrates may cause pin-holing of the product during the curing process.

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.

SAFETY DATA

Part A Component

Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing cancer. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. Do not breathe mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Store locked up. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. Additional information is in the Safety Data Sheet (SDS) at www.ardexaustralia.com

Part B Component

Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing cancer. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. Do not breathe mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Store locked up. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. Additional information is in the Safety Data Sheet (SDS) at 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, 2 Buda Way Kemps Creek NSW 2178; Toll Free: 1800 224 070; Email: 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.

This data sheet was issued in January 2025 and is valid for 3 years, in some instances a newer version may be published. Always refer to www.ardexaustralia.com for the latest technical data from ARDEX Australia Pty Ltd.