

ARDEX WPM 3000X

Shelterseal 3000X

Self Adhesive SBS Membrane



PRODUCT DESCRIPTION

ARDEX WPM 3000X (Shelterseal 3000X) is a “peel and stick” bituminous/asphalt damp proof membrane protected by a cross laminated high-density polyethylene film.

ARDEX WPM 3000X (Shelterseal 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 up to 9% 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

BASIC APPLICATION INSTRUCTIONS

Surface Preparation

Surfaces to which the ARDEX WPM 3000X (Shelterseal 3000X) systems are 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.

Priming

Prior to the application of the membrane all prepared surfaces (except polystyrene blocks) should be primed with ARDEX WPM 240 or WPM 247 (Shelter Primer) at a rate of 5-6m² per litre and allowed to dry.

Membrane Installation

Starting at the lowest point, the membrane must be installed in accordance with the Technical Literature. Sheet edges must be overlapped a minimum of 60mm as marked on the sheets. End laps must be a minimum of 100mm, with upper sheets lapped over lower sheets. Internal and external corners of single layer systems must be reinforced with an extra layer of membrane 300mm wide. Where two layer systems are specified lap joints must be staggered. Protection material must be installed before backfilling. Backfilling must commence immediately after the membrane is installed to ensure the membrane is not left exposed to sunlight or UV radiation.

Installation of the membranes must be completed by ARDEX approved applicator. who have experience in the application of self-adhesive membranes.

Two Layer DPM System

In critical areas a specifier may require a second layer of ARDEX WPM 3000X (Shelterseal 3000X) to be applied with laps staggered to the first layer.

PLASTERING OVER SHELTERSEAL

Coat affected area with ARDEX WPM 179 (Refer to page 45). Let coating dry then apply a second coat of ARDEX WPM 179. While still wet broadcast dry sand onto the surface. Let Dry. When dry, plaster area with normal plaster system.

This is to cover any Shelterseal that is finished above ground due to slope of site. It is not intended to cover roofing applications.

SAFETY DATA

ARDEX WPM 240 (Shelter Primer) is solvent based and classified as Dangerous Goods Class 3 Packaging Group II material. It is highly flammable and should be used with appropriate safety equipment. Avoid inhalation or contact with eyes.

First Aid: If swallowed do not induce vomiting, contact a doctor or Poisons Information Centre immediately. In case of contact with eyes rinse thoroughly with water.

Spills & Leaks: Restrict access to area. Prevent material entering sewers and restricted areas. If possible cover liquid with earth, sand or absorbent material. Flush area with water.

Fire: Eliminate all sources of ignition. Firefighters should wear full protective clothing and self contained breathing apparatus with full face mask. Use dry chemicals foam or carbon dioxide to extinguish fire.

STORAGE

All rolls of ARDEX WPM 3000X (Shelterseal 3000X) whether palletised or loose 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

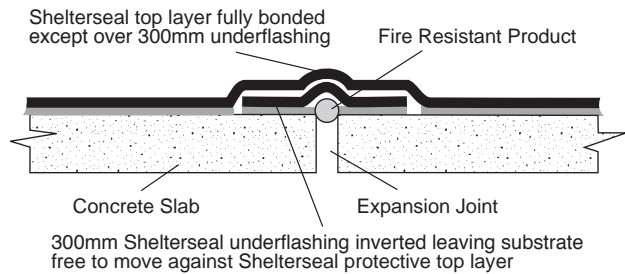
Roll size: 1m x 20m Roll weight: Approx 30kg

Other products: Shelter Primer 5 litres and 20 litres

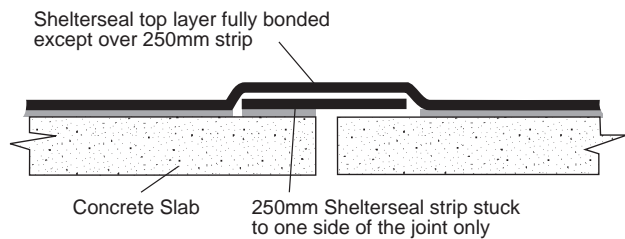
TECHNICAL PERFORMANCE DATA

Properties	Typical Values	Test Method
Thickness	1.5mm	UNI 8202
Weight	1.6kg	UNI 8202
Tensile strength long	4.35N/mm	ASTM D 638
Tensile strength trans	5.69N/mm	ASTM D 638
Longitudinal elongation of membrane	435%	ASTM D 638
Transverse elongation of membrane	380%	ASTM D 638
Tearing resistance long	83.01N	8202/9
Tearing resistance trans	73.74N	8202/9
Adhesion to primed concrete	4.9N/mm	ASTM D 1000
Adhesion to steel	5.8N/mm	ASTM D 1000
Puncture resistance	246N/65mm	ASTM E 154
Vapour transmission rate	0.3g/m/24hrs	ASTM E 96
Cold flexibility	-30°C	ASTM D 146
Environmental resistance	Conform	ASTM D 543

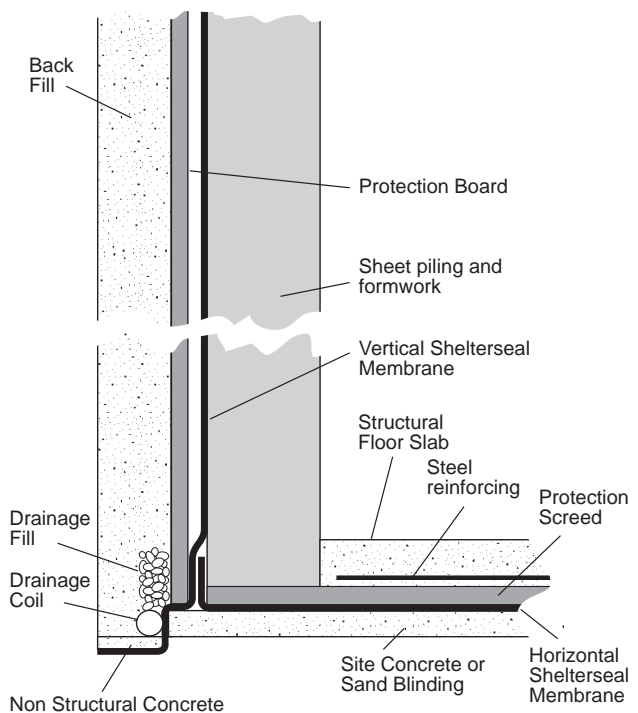
EXPANSION JOINT



CONSTRUCTION JOINT



BELOW GROUND DETAIL



Typical details do not indicate number of layers required

ARDEX WPM 5000HD

Shelterseal HD

Self Adhesive SBS Membrane



PRODUCT DESCRIPTION

ARDEX WPM 5000HD (Shelterseal HD) is an industrial strength “peel and stick” bituminous/asphalt membrane. ARDEX WPM 5000HD (Shelterseal HD) is reinforced with a layer of polypropylene mesh giving the product exceptionally high mechanical characteristics.

ARDEX WPM 5000HD (Shelterseal HD) 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 (Shelterseal HD) systems are 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.

Priming

Prior to the application of the membrane all prepared surfaces except polystyrene block should be primed with ARDEX WPM 240 (Shelter Primer) at a rate of 5-6m² per litre and allowed to dry.

Membrane Installation

Starting at the lowest point, the membrane must be installed in accordance with the Technical Literature. Sheet edges must be overlapped a minimum of 60mm as marked on the sheets. End laps must be a minimum of 100mm, with upper sheets lapped over lower sheets. Internal and external corners of single layer systems must be reinforced with an extra layer of membrane 300mm wide. Where two layer systems are specified lap joints must be staggered. Protection material must be installed before backfilling. Backfilling must commence immediately after the membrane is installed to ensure the membrane is not left exposed to sunlight or UV radiation.

Installation of the membranes must be completed by tradespersons who have experience in the application of self-adhesive membranes.

Applying asphalt directly over ARDEX WPM 5000HD (Shelterseal HD)

The asphalt should be applied as soon as possible after the ARDEX WPM 5000HD (Shelterseal HD) 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.

PLASTERING OVER SHELTERSEAL

Coat affected area with ARDEX WPM 179 (Refer to page 45). Let coating dry then apply a second coat of ARDEX WPM 179. While still wet broadcast dry sand onto the surface. Let Dry. When dry, plaster area with normal plaster system.

SAFETY DATA

ARDEX WPM 240 (Shelter Primer) is solvent based and classified as Dangerous Goods Class 3 Packaging Group II material. It is highly flammable and should be used with appropriate safety equipment. Avoid inhalation or contact with eyes.

First Aid: If swallowed do not induce vomiting, contact a doctor or Poisons Information Centre immediately. In case of contact with eyes rinse thoroughly with water.

Spills & Leaks: Restrict access to area. Prevent material entering sewers and restricted areas. If possible cover liquid with earth, sand or absorbent material. Flush area with water.

Fire: Eliminate all sources of ignition. Firefighters should wear full protective clothing and self contained breathing apparatus with full face mask. Use dry chemicals foam or carbon dioxide to extinguish fire.

STORAGE

ARDEX WPM 5000HD (Shelterseal HD) is supplied in white cardboard cartons. All rolls should be stored in a vertical position, covered area protected against UV radiation.

PACKAGING

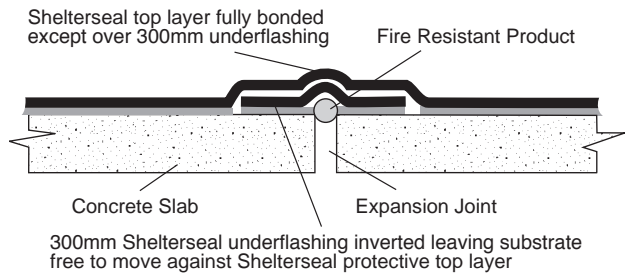
Roll size: 1m x 20m Roll weight: Approx 30kg

Other products: Shelter Primer 5 litres and 20 litres

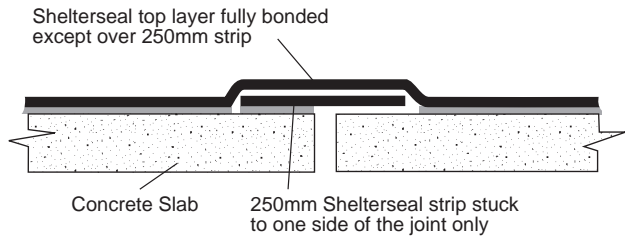
TECHNICAL PERFORMANCE DATA

Properties	Typical Values	Test Method
Thickness	1.5mm	UNI 8202
Weight	1.6kg	UNI 8202
Colour	Black	
Softening point	110°C	
Temperature resistance (maximum)	150°C	
Tensile strength (longitudinal)	152kg/8cm	
Tensile strength (transverse)	124kg/8cm	
Elongation (longitudinal)	32%	ASTM D638
Elongation (transverse)	21%	ASTM D638
Tearing (longitudinal)	350N	UNI 8202/9
Tearing (transverse)	300N	UNI 8202/9
Adhesion to primed concrete	4.9 N/mm	ASTM D1000
Adhesion to steel	5.8 N/mm	ASTM D1000
Puncture resistance	220 N/65mm	ASTM E 154
Vapour transmission rate	0.3g/m/24hrs	ASTM E 96
Cold flexibility	-30°C	ASTM D 146

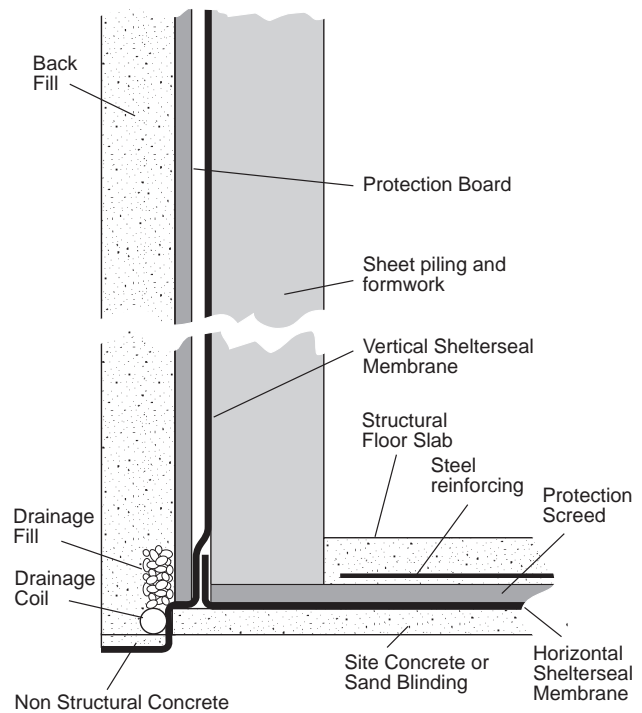
EXPANSION JOINT



CONSTRUCTION JOINT



BELOW GROUND DETAIL



Typical details do not indicate number of layers required

ARDEX WPM 195

SBS Torch-Applied Tanking Membrane

PRODUCT DESCRIPTION

ARDEX WPM 195 is a high performance Styrene-Butadiene-Styrene (SBS) bituminous compound modified with adhesive elastoplastomeric polymers its excellent quality is highlighted by two indicators: cold flexibility and high adhesiveness. ARDEX WPM 195 is suitable for application in all climatic zones, with excellent cold flexibility (-20° C) enables an easy application and allows the membrane to be ideally suited to be applied in areas with harsh climates.

The exceptional elongation properties of SBS combined with the strength and dimensional stability of the reinforcing provides an excellent waterproofing membrane in below ground applications. ARDEX WPM 195 is coated with a sanded polymeric film PE/PP, while the bottom surface is embossed and protected by a heat sensitive polythene film.

ARDEX WPM 195 also has the European CE certification for use as a tanking membrane.

FEATURES/BENEFITS

- Complies with BS EN 13969:2004
- European CE certification - GB06/69203
- CodeMark Certification (No. AQ-021216-CMNZ)
- Excellent resistance to atmosphere agents
- Excellent resistance to Geothermal Gas including Hydrogen Sulphide
- High flexibility during application at sub-zero temperature with no physical strains
- High malleability
- Accommodates structural movements
- Resistant to chemical attacks
- Withstand thermal shocks
- Proven performance in colder regions
- Good elongation and flexibility

USES

ARDEX WPM 195 is used as a single layer or multi-layer membrane in horizontal or vertical applications for waterproofing for below ground tanking. It is primarily applied to the outside of a sub-structure of a building, such as a foundation or basement to prevent water ingress.

Other forms of tanking where ARDEX 195 can be used include under floor slabs, behind masonry walls, the lining of substrates of in situ or precast concrete; retaining walls, lift shafts, tunnels, living roofs and planter boxes.

ARDEX WPM195 membrane must be protected from UV.

SURFACE PREPARATION

Substrates need to be clean, smooth, dry and free of sharp edges, loose or foreign materials, oil, grease and other materials that may damage the membrane. All surface voids greater than 5mm wide shall be properly filled with an acceptable fill material.

Confirm concrete structures are specifically engineered to meet the requirements of the NZBC B1/VM1, 3.0 Concrete.

Ensure concrete substrate has been allowed to cure for at least 28 days before commencing application. The relative humidity of concrete substrates must be 75% or less before membrane application to NZBC E2/AS1, 10.0 Construction moisture. Take a measurement using a hygrometer to verify concrete has sufficiently dried when necessary. This process is essential.

The above criteria do not apply if ARDEX WPM 195 is loose-laid on lean site concrete.

ARDEX do not recommend the use of curing compounds; however, when used ensure all traces of compound are gone or removed. Concrete to be finished to NZS 3114, U3 with a light trowel texture. The concrete to have all ridges and protrusions stoned flush.

INSTALLATION

The application of ARDEX WPM 195 should be carried out by an approved ARDEX Applicator.

Installation shall be undertaken in accordance with all relevant technical information related to the selected installation method, including information contained within the ARDEX specification.

Prior to the application of ARDEX WPM 195 the surface may require priming with ARDEX WPM 240 (Shelter Primer). Coverage of primer will depend on the porosity of the substrate.

ARDEX WPM 195 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 195 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 WPM195 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 8m

Roll weight: Approximately 40kg

Rolls per pallet: 25

ARDEX HYDRO STOP

Please refer to Ardex 1950 and Ardex 1955 for data sheets on standard and sea water activated Hydrophilic Rubber Water Stops.

ARDEX WPM 195

SBS Torch-Applied Tanking Membrane

TECHNICAL CHARACTERISTICS

CHARACTERISTIC	TEST METHOD	UNITS	NOMINAL VALUES	TOLERANCES
Visible defects	EN 1850-1	visible	Without defects	
Length	EN 1848-1	m	8 -1%	MLV
Width	EN 1848-1	m	1 -1%	MLV
Straightness	EN 1848-1	mm	20 mm x 8 m	MLV
Thickness	EN 1849-1	mm	4	±
Watertightness (A)	EN 1928	kPa	60	MLV
Shear resistance longitudinal / transversal	EN 12317-1	N/50 mm	650 / 450	± 20%
Water vapour transmission proprieties Method A	EN 1931	μ / Sd (m)	120.000 / 480	-20.000
Tensile Strength Longitudinal / Transversal	EN 12311-1	N/50 mm	750 / 550	± 20%
Elongation at break Longitudinal / Transversal	EN 12311-1	%	45 / 45	- 15 absolut
Resistance to impact	EN 12691	mm	900	MLV
Resistance to static loading Method A	EN 12730	Kg	15	MLV
Resistance to tearing (nail shank)	EN 12310-1	N	180 / 180	- 30%
Dimensional stability Longitudinal / Transversal	EN 1107-1 met. A	%	± 0,3 %	MLV
Flexibility at low temperature	EN 1109	°C	-20	MLV
Flow resistance at elevated temperature	EN 1110	°C	90	MLV
Durability of watertightness against artificial ageing	EN 1296 / EN 1928	kPa	60	MLV
Durability of watertightness against chemicals	EN 1847 / EN 1928	Kpa	60	MLV
Change in mass on exposure to Hydrogen Sulphide	EN 1847 - Cert No 10998	%	0.29	MDV
Change in Tensile Strength on exposure to Hydrogen Sulphide	EN 1847 - Cert No 10998	%	-9.6	MDV
Change in Elongation on exposure to Hydrogen Sulphide	EN 1847 - Cert No 10998	%	7.2	MDV

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SBS Torch-Applied Tanking Membrane

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ARDEX WPM 196

SBS Torch-Applied Tanking Membrane

PRODUCT DESCRIPTION

ARDEX WPM 196 is a high performance Styrene-Butadiene-Styrene (SBS) bituminous compound modified with adhesive elastoplastomeric polymers its excellent quality is highlighted by two indicators: cold flexibility and high adhesiveness. ARDEX WPM 196 is suitable for application in all climatic zones, with excellent cold flexibility (-20° C) enables an easy application and allows the membrane to be ideally suited to be applied in areas with harsh climates.

The exceptional elongation properties of SBS combined with the strength and dimensional stability of the reinforcing provides an excellent waterproofing membrane in below ground applications. ARDEX WPM 196 is coated with a mineral chip - sand, polymeric film PE/PP, while the bottom surface is embossed and protected by a heat sensitive polythene film.

ARDEX WPM 196 also has the European CE certification for use as a tanking membrane.

FEATURES/BENEFITS

- Complies with BS EN 13969:2004
- European CE certification - GB06/69203
- CodeMark Certification (No. AQ-021216-CMNZ)
- Excellent resistance to atmosphere agents
- Excellent resistance to Geothermal Gas including Hydrogen Sulphide
- High flexibility during application at sub-zero temperature with no physical strains
- High malleability
- Accommodates structural movements
- Resistant to chemical attacks
- Withstand thermal shocks
- Proven performance in colder regions
- Good elongation and flexibility

USES

ARDEX WPM 196 is used as a single layer or multi-layer membrane in horizontal or vertical applications for waterproofing for below ground tanking. It is primarily applied to the outside of a sub-structure of a building, such as a foundation or basement to prevent water ingress.

Other forms of tanking where ARDEX WPM 196 can be used include under floor slabs, behind masonry walls, the lining of substrates of in situ or precast concrete; retaining walls, lift shafts, tunnels, living roofs and planter boxes.

SURFACE PREPARATION

Substrates need to be clean, smooth, dry and free of sharp edges, loose or foreign materials, oil, grease and other materials that may damage the membrane. All surface voids greater than 5mm wide shall be properly filled with an acceptable fill material.

Confirm concrete structures are specifically engineered to meet the requirements of the NZBC B1/VM1, 3.0 Concrete.

Ensure concrete substrate has been allowed to cure for at least 28 days before commencing application. The relative humidity of concrete substrates must be 75% or less before membrane application to NZBC E2/AS1, 10.0 Construction moisture. Take a measurement using a hygrometer to verify concrete has sufficiently dried when necessary. This process is essential.

The above criteria do not apply if ARDEX WPM 196 is loose-laid on lean site concrete.

ARDEX do not recommend the use of curing compounds; however, when used ensure all traces of compound are gone or removed. Concrete to be finished to NZS 3114, U3 with a light trowel texture. The concrete to have all ridges and protrusions stoned flush.

INSTALLATION

The application of ARDEX WPM 196 should be carried out by an approved ARDEX Applicator.

Installation shall be undertaken in accordance with all relevant technical information related to the selected installation method, including information contained within the ARDEX specification.

Prior to the application of ARDEX WPM 196 the surface may require priming with ARDEX WPM 240 (Shelter Primer). Coverage of primer will depend on the porosity of the substrate.

ARDEX WPM 196 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 196 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 WPM 196 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 8m

Roll weight: Approximately 40kg

Rolls per pallet: 25

ARDEX HYDRO STOP

Please refer to Ardex 1950 and Ardex 1955 for data sheets on standard and sea water activated Hydrophilic Rubber Water Stops.

ARDEX WPM 196

SBS Torch-Applied Tanking Membrane

TECHNICAL CHARACTERISTICS

CHARACTERISTIC	TEST METHOD	UNITS	NOMINAL VALUES	TOLERANCES
Visible defects	EN 1850-1	visible	Without defects	
Length	EN 1848-1	m	8 -1%	MLV
Width	EN 1848-1	m	1 -1%	MLV
Straightness	EN 1848-1	mm	20 mm x 8 m	MLV
Thickness	EN 1849-1	mm	4	±
Watertightness (A)	EN 1928	kPa	60	MLV
Shear resistance longitudinal / transversal	EN 12317-1	N/50 mm	650 / 450	± 20%
Water vapour transmission proprieties Method A	EN 1931	μ / Sd (m)	120.000 / 480	-20.000
Tensile Strength Longitudinal / Transversal	EN 12311-1	N/50 mm	750 / 550	± 20%
Elongation at break Longitudinal / Transversal	EN 12311-1	%	45 / 45	- 15 absolut
Resistance to impact	EN 12691	mm	900	MLV
Resistance to static loading Method A	EN 12730	Kg	15	MLV
Resistance to tearing (nail shank)	EN 12310-1	N	180 / 180	- 30%
Dimensional stability Longitudinal / Transversal	EN 1107-1 met. A	%	± 0,3 %	MLV
Flexibility at low temperature	EN 1109	°C	-20	MLV
Flow resistance at elevated temperature	EN 1110	°C	90	MLV
Durability of watertightness against artificial ageing	EN 1296 / EN 1928	kPa	60	MLV
Durability of watertightness against chemicals	EN 1847 / EN 1928	Kpa	60	MLV
Change in mass on exposure to Hydrogen Sulphide	EN 1847 - Cert No 10998	%	0.29	MDV
Change in Tensile Strength on exposure to Hydrogen Sulphide	EN 1847 - Cert No 10998	%	-9.6	MDV
Change in Elongation on exposure to Hydrogen Sulphide	EN 1847 - Cert No 10998	%	7.2	MDV

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ARDEX WPM 1500

WeldTec Below Ground Tanking Membrane

DESCRIPTION

ARDEX WPM 1500 is a fleece-lined, weldable tanking membrane for below ground applications.

USE

ARDEX WPM 1500 is used as a single layer or multi-layer membrane in horizontal or vertical applications for waterproofing for below ground tanking. It is primarily applied to the outside of a sub-structure of a building, such as a foundation or basement to prevent water ingress.

Other forms of tanking where ARDEX WPM 1500 can be used include under floor slabs, behind masonry walls, the lining of substrates of in situ or precast concrete; retaining walls, lift shafts, tunnels, living roofs and planter boxes.

ARDEX WPM 1500 must be protected from UV.

DURABILITY

ARDEX WPM 1500 when fixed according to ARDEX instruction will meet the New Zealand Building Code requirements of B2.3.1 (a) 50 years.

MATERIAL SPECIFICATIONS

ARDEX requirements for long term warranty necessitate that the ARDEX WPM 1500 meets these typical technical requirements listed below in Table 1.

GAUGES

Standard 1.5 mm

RESISTANCE

ARDEX WPM 1500 resists tearing, flex-cracking, bubbling and abrasion. It is extremely strong, has a long life and is versatile.

PACKAGING

ARDEX WPM 1500 is packaged in rolls of nominal 1.4 m width and 20 m long. Each roll is packed in a polythene wrapper trademarked ARDEX WPM 1500.

ADHESIVES FOR USE WITH ARDEX WPM 1500

ARDEX WA 98 - Solvent Based waterproofing adhesive.

INSTALLATION

The application of ARDEX WPM 1500 should be carried out by an approved ARDEX Applicator.

Installation shall be undertaken in accordance with all relevant technical information related to the selected installation method, including information contained within the ARDEX specification.

Acceptable substrates to which ARDEX WPM 1500 is to be installed must be properly prepared prior to membrane installation.

Physical Properties

Parameter	ARDEX WPM 1500	Test Method
Colour	Grey/Black	
Thickness	1.5 mm	
Width	1.40 m	
Roll Length	20 m	
Low Temperature Flexibility	Pass at -29°C	ASTM D1970
Elongation	500% typical	ASTM D412
Tensile Strength	8 MPa	ASTM D412
Puncture Resistance	600 N	ASTM E96 B
Peel Adhesion to Concrete	0.87 N/mm	ASTM D903 modified
Lap Peel Adhesion	7 N/mm	ASTM D1876
Permeance to Water Vapour Transmission	0.04 g/dm ²	ASTM E96 B
Radon Diffusion Coefficient	1.6 x 10 ⁻¹¹ m ² /s	K124/02/95
Water-Tightness to Liquid Water	Pass	EN 1928
Durability of Water-Tightness Against Chemicals	Pass	EN 1847 and EN 1928
Resistance to Tear (Nail Shank)	351 N	EN 12310-1
Bitumen Compatability	Pass	EN 1548 and EN 1928
Joint Strength	380 N/50mm	EN 12317-2
Lateral Water Migration Resistance	Max. 85 psi (60 m of hydrostatic head pressure)	STM D 5385 Modified1
Resistance to Hydrostatic Head	Pass at 100 psi (70 m of hydrostatic head pressure)	ASTM D 5385 Modified2

- Lateral water migration resistance is tested by casting concrete against membrane with a hole and subjecting the membrane to hydrostatic head pressure with water. The test measures the resistance of lateral water migration between the concrete and the blind side waterproofing membrane.
- Hydrostatic head tests are performed by casting concrete against the membrane with a lap. Before the concrete sets a 3 mm spacer is inserted perpendicular to the membrane to create a gap. The cured block is placed in a chamber where water is introduced to the membrane surface up to a pressure of 100 psi which is the limit of the apparatus.

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

- A. Substrate examination: Examine substrates, areas, and conditions, with the applicator present, for compliance with requirements and other conditions affecting performance.
- 1. For applications over blinding, a concrete mud-slab, compacted subgrade or vertical soil retention system, verify that compacted sub-grade or concrete mud-slab is smooth and sound; and ready to receive the ARDEX WPM1500 below grade membrane.
- 2. Verify that vertical soil retention systems are prepared using drainage composite, plywood, shotcrete or other approved means to achieve a uniform, sound and continuous substrate ready to receive the ARDEX WPM 1500 below grade membrane.
- 3. Proceed with installation only after unsatisfactory conditions have been corrected.

ARDEX WPM 1500 is normally fully bonded to the prepared substrate with side laps of 100mm and end laps of 150mm. Overlaps shall be sealed by using a Leister Triac S Hot Air Gun hand welder, or Leister Twinny Combi-Welder.

ARDEX WPM 1500 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.

INSTALLATION - VERTICAL

Apply the membrane with the black side towards the substrate. Mechanically fasten the membrane vertically using flat headed fixings appropriate to the substrate. The membrane may be installed in any convenient length. Secure the top of the membrane using a batten or fixing 50 mm below the top edge. Use fixings at typically 600 mm centres to secure the membrane flat against the substrate.

Fixings can be made through the selvedge; this allows firmly welded and rolled overlaps, which are covered by the subsequent sheet of ARDEX WPM 1500. Any exposed fixings should be patched by heat welding a patch of ARDEX WPM 1500 with a Leister Triac S Hot Air Gun.

REMOVAL OF FORMWORK

ARDEX WPM 1500 membranes can be applied to removable single and double sided formwork, slab perimeter formwork, pile caps, etc. Once concrete is poured the formwork must remain in place until the concrete has gained sufficient compressive strength to

develop the surface bond with ARDEX WPM 1500.

A minimum concrete compressive strength of 10 N/mm² is recommended prior to stripping formwork supporting WPM 1500 membranes. Premature stripping may result in loss of adhesion between the membrane and concrete.

Roll out ARDEX WPM 1500 and cut to the measured length. Smooth ARDEX WPM 1500 on contact to minimise air entrapment beneath the membrane.

Floor sheets of ARDEX WPM 1500 must extend up the wall at least 300mm. Make sure the ARDEX WPM 1500 is laid tightly into all corners. Wall sheets of ARDEX WPM 1500 should overlap the 300mm upstand. Weld seams and laps with the Leister Triac S Hot Air Gun or Leister Twinny Combi-Welder. Roll with a rubber roller to ensure seams and laps are secure.

PROTECTION

ARDEX WPM 1500 is not suitable as a trafficable surface. It is the responsibility of the main building contractor to ensure all sub-trades likely to be working in the vicinity of the membrane are aware that a waterproofing membrane has been installed and all care must be taken to protect the membrane from damage.

SAFETY PRECAUTIONS

ARDEX WPM 1500 is not classified as dangerous goods

ARDEX HYDRO STOP

Please refer to Ardex 1950 and Ardex 1955 for data sheets on standard and sea water activated Hydrophilic Rubber Water Stops.

ARDEX HYDROSTOP SW WPM 1950

Polymeric Hydrophilic Rubber Joints

DESCRIPTION

Thanks to its particular chemical composition, ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint remains unaltered over time even at maximum expansion, is dimensionally stable even after numerous hydration and de-hydration cycles while maintaining its ability to increase its volume.

In its maximum expansion, in all its sections, ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint is mechanically strong and elastic. The swelling process is controlled and designed to be compatible with fresh concrete.

The expansion is due to the increase in volume of the ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint components, such as butyl rubber, polyethylene aggregated by high cohesion polymeric binders.

APPLICATION INSTRUCTIONS

ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint must be applied to the support with nails or cement adhesives to remain attached to the support in the early stages of concrete casting. For maximum performance ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint should be placed between the reinforcing bars or in a support with raised edge of at least 8/10 cm. The joints are realized by matching sideways the rubber strip for at least 5 cm, while avoiding overlapping. The application surface should be clean, compact, properly vibrated and free of any irregularities.

BENEFITS

ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint is non-greasy, non-sticky, odorless and non-toxic. Thanks to its ductility it can be used in all conditions and, apart from the nails or adhesive, needs no additional support also in the vertical laying.

PACKAGING

Normally the ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint is protected in impermeable packs in cardboard boxes with 6 rolls 8mt long in a box, giving a total of 48 lineal meters. Profiles and sizes are those normally used in the construction site; profiles with particular sections are available on request:

SW WPM 1950 20mm x 10mm x 8mt roll. 6 rolls per carton equals 48 lineal metres per box

LIMITATIONS

In case of contact with high salt content water, ARDEX Hydrostop SW WPM 1950 hydrophilic rubber joint, preliminary expansion tests must be carried out. For further information please contact our technical service.

SAFETY PRECAUTIONS

There is no health hazards associated with ARDEX Hydrostop SW WPM 1950 in normal use.

Technical Data

Specific weight	ISO 1183	1,26 kg/dm ³
Operating temperature	ISO 458/2	about +4 °C
Max. expansion		% 350
Hardness	ISO 868	60 shore A
Load at break	ISO 527	25 N/mm ²
Elongation at break	ISO 527	300 %
Durability		unlimited
Sections	various	

DISCLAIMER

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ARDEX HYDROSTOP SEA WPM 1955

Polymeric Hydrophilic Rubber Joints

DESCRIPTION

Thanks to its particular chemical composition, ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint remains unaltered over time even at maximum expansion, is dimensionally stable even after numerous hydration and dehydration cycles while maintaining its ability to increase its volume.

USED IN APPLICATIONS IN BRACKISH AND MARINE WATER

In its maximum expansion, in all its sections, ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint is mechanically strong and elastic. The swelling process is controlled and designed to be compatible with fresh concrete. First expansion occurs after 6/12 hours, while second expansion occurs after 24/36 hours.

COMPOSITION

The expansion is due to the increase of volume in the ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint components, such as butyl rubber, polyethylene aggregated by high cohesion polymeric binders.

APPLICATION INSTRUCTIONS

ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint, whose standard section size is 10x20mm, but can also be supplied in different sizes, must be applied to the support with nails or cement adhesives to remain attached to the support in the early stages of concrete casting. For maximum performance ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint should be placed between the reinforcing bars or in a support with raised edge of at least 8/10 cm. The joints are realized by matching sideways the rubber strip for at least 5 cm, while avoiding overlapping. The application surface should be clean, compact, properly vibrated and free of any irregularities.

BENEFITS

ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint is non-greasy, non-sticky, odorless and non-toxic. Thanks to its ductility it can be used in all conditions and, apart from the nails or adhesive, needs no additional support also in the vertical laying.

PACKAGING

Normally the ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint is protected in impermeable packs in cardboard boxes with 6 rolls 8mt long in a box, giving a total of 48 lineal meters. Profiles and sizes are those normally used in the construction site; profiles with particular sections are available on request:

SEA WPM 1955 20mm x 10mm x 8mt roll. 6 rolls per carton equals 48 lineal metres per box.

Guarantees

ARDEX Hydrostop SEA WPM 1955 hydrophilic rubber joint in its various sections is manufactured with the best materials available on the market to obtain a top quality product.

All information reported on this data sheet correspond to our present level of technical and scientific knowledge studied in laboratory and tested on the site.

There can be changes attributable to environmental or application differences, or to the particular state of the material where to install the joint.

Therefore, information given in this sheet is not a guarantee on results, just warranty on the product quality.

SAFETY PRECAUTIONS

There is no health hazards associated with ARDEX Hydrostop SEA WPM 1955 in normal use.

Technical Data

Specific weight	ISO 1183	1,27 kg/dm ³
Operating temperature	ISO 458/2	about +3 °C
Max. expansion		% 350
Hardness	ISO 868	45 shore A
Load at break	ISO 527	30 N/mm ²
Elongation at break	ISO 527	500 %
Expansion		200 %
Sections	various	

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