Ardex Tanking Membrane Compliance Report

Compliance Report

Dani Foote 31/08/20 J200049

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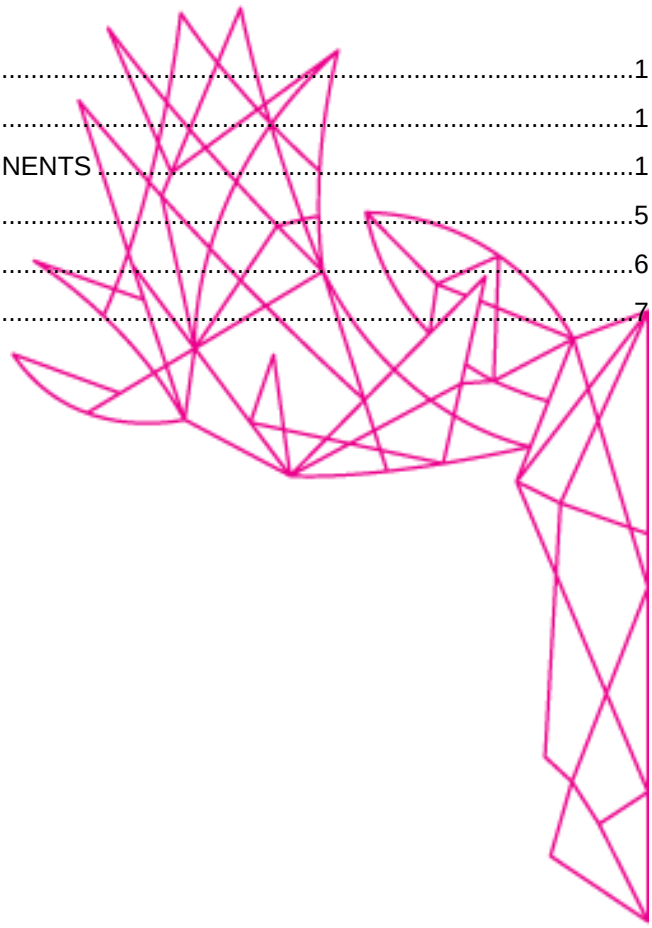


1. PURPOSE

This report sets out:

- the applicable performance requirements for Ardex bitumen tanking system
- the proposed components comprising the Ardex tanking system
- the compliance evidence of these components with the New Zealand Building Code.

This report certifies compliance of the proposed design with the New Zealand Building Code.

2. CONDITIONS OF THIS REPORT

The compliance potential set out in this report for the Ardex bitumen tanking system design has been evaluated using compliance documentation relevant to the proposed components comprising the building enclosure design.

This report and any building consent resulting does not guarantee the building will achieve compliance with the New Zealand Building Code; only that it can achieve compliance as designed.

3. COMPLIANCE OF BUILDING ENCLOSURE COMPONENTS

This section sets out:

- The proposed product components for the building enclosure design to achieve the tanking waterproofing performance requirements are set out in this report,
- Summary of their compliance with relevant clauses of the New Zealand Building Code, and
- relevant documentation considered for each product in establishing compliance, attached in the Appendices.

Ardex WPM196 Mineral Chip and WPM195 Sanded Waterproofing System

Below-Grade Waterproofing System description:

Ardex WPM 196 and 195 are high performance, polymer-modified styrene butadine styrene (SBS) bituminous tanking membranes. WPM 196 has a mineral chip finish while WPM 195 has a sanded finish. The bottom surface of both are embossed and protected by a heat sensitive polythene film

Ardex WPM 196 and WPM 195 have excellent strength and dimensional stability that provides superior waterproofing ability for below-grade applications.

Ardex WPM 196 and WPM 195 have excellent cold flexibility and can be applied at temperatures down to -20C

Project Specific Details & Considerations:

Ardex WPM 196 is to be installed under insitu poured concrete foundation, slab or wall. Any intersecting ground beams will have WPM 196 applied minimum 1m lap past the ground beam junction with a minimum 250 micron polythene to be installed under the Ardex bitumen membrane minimum 100mm. Where the WPM 196 or WMP 195 membrane will transition to a slab with polythene under, the Ardex 196 or 195 membrane will extend min 400mm from the foundation/wall to any under slab situation with the polythene lapping under WPM196 by min 100mm.

Ardex WPM 195 with sanded finish will be post applied to any masonry block wall, precast concrete or insitu poured concrete walls.

Key project considerations with this below-grade waterproofing system include:

- Fully torched laps
- Waterstops at all below-grade concrete construction/cold joints
- Full encapsulation system when subjected to high water table
- Suitable for insitu poured concrete applications
- Suitable for post applied applications to concrete/block walls
- Protection required for vertical applications before backfill
- Protection can be High density insulation min. 50mm
- A drainage medium is recommended to assist water migration away from the below-grade walls using Ardex DRS 10 GC drainage cell

- Site concrete, high density insulation, sand blinding or mud slab are all approved substrates for blindside application preparation
- Ardex WPM 240 or Ardex WP247 primer to be used in most applied applications

Accessory materials & products:

Products/materials that are included with this below-grade waterproofing system include:

- Ardex WPM 196 technical data sheet
- Ardex WPM 195 technical data sheet
- Ardex Hydrostop WPM 1955 marine polymeric hydrophilic swellable rubber joint tech data sheet
- Ardex BR345 structural concrete patching and mortar repair tech data sheet
- Ardex bituminous roof sealant data sheet
- Ardex DRS 10 GC prefabricated drainage protection membrane tech data sheet
- Ardex WPM 400 water-based epoxy primer tech data sheet
- Ardex pressure termination bar tech data sheet
- Ardex WPM 170 water-based aliphatic PU membrane tech data sheet

Code clause B1 – Structure:

It is assumed that all concrete slabs and walls are within the structural engineer's scope of work and have been designed to resist the loads imposed by any retained ground and/or hydrostatic water pressure applied to the substrate.

Code clause B2 – Durability:

The functional requirement of this part of the building code clause are set out in clause B2.2: *"Building materials, components and construction methods shall be sufficiently durable to ensure that the building, without reconstruction or major renovation, satisfies the other functional requirements of this code throughout the life of the building."*

The durability performance requirements of B2.3.1 state each building element must have an intended life of (a) 50 years, (b) 15 years, or (c) 5 years. This depends on factors such as the difficulty of replacement or repair.

This tanking membrane is deemed to meet 50 years for the below-grade waterproofing. The Ardex WPM 196 and WPM 195 waterproofing system is a high-performance polymer modified styrene butadine Styrene (SBS) bitumen waterproofing membrane. The SBS compound provides excellent cold flexibility at -20 C. The exceptional elongation properties of the SBS combined with the strength and dimensional stability of the reinforcing provides an excellent waterproofing membrane in below-grade applications.

Bitumen membranes have well over 50 years of field history and success with waterproofing projects worldwide and will meet the durability evaluation requirements of B2/VM1.

Code clause C3 – Fire affecting areas beyond the source:

With the below-grade waterproofing membrane being entirely underground, the objective of this code clause does not apply.

Code clause E2 – External Moisture:

The functional requirement of this part of the building code clause are set out in clause E2.2: *"Buildings must be constructed to provide adequate resistance to penetration by, and the accumulation of, moisture from the outside."*

The Ardex WPM 196 and WPM 195 membranes are made up of SBS bitumen. Bitumen membranes are designed to be installed in both horizontal and vertical applications with WPM 195 onto concrete substrates that have been cured for at least 28 days for wall applications. The relative humidity of concrete substrates for wall applications must be 75% or less before membrane application to NZBC E2/AS1. For under slab applications mineral chip membrane must be used with mineral chip facing the installer. Laps of the membrane are sealed by torch with side laps 100mm and end laps 150mm. End laps are to be staggered.

For the transition from below-grade to UV exposed above ground there are two options:

WPM 196 with mineral chip that provides UV protection with termination bar or chased flashing.

WPM 195 with WPM 170 water-based aliphatic PU membrane applied over WPM 400 water-based primer. Limitations, there is a maintenance requirement with additional coats to be applied every 5-7 years.

Hydrostops are also provided at all below-grade concrete construction joints. Thus, if any water bypasses the waterproofing membranes, the Hydrostops will prevent any further passage of exterior moisture from entering the building.

As the waterproofing membrane is a fully torched single or double layer of bitumen sheet membrane, it will resist the passage of water up to 6m for a single layer with double layered laps around all critical details such as pipe penetrations, wall to slab junctions, internal and external corners..

We have conducted internal laboratory testing of the Ardex WPM 196 and Ardex 195 membranes and are satisfied with the following performance criteria:

- moisture absorption
- concrete peel adhesion
- tensile strength
- elongation

As a result, we are satisfied this below-grade system will meet the functional requirements of building code clause E2.

Code clause F2 – Hazardous Building Materials

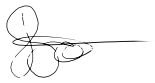
A Geotech report needs to be cross referenced with the Ardex WPM 195 technical data sheet to verify if suitable.

The Ardex WPM 196 and WPM 195 membranes have excellent resistance to atmospheric agents and geothermal gas including hydrogen sulphide and is resistant to chemical attacks. However Ardex requires any site that has any contaminated soil or water to consult with them immediately to ensure membrane suitability.

4. COMPLIANCE STATEMENT

Oculus Limited are satisfied on reasonable grounds that the Ardex tanking system will meet the relevant provisions of the New Zealand Building Code.

Prepared by:



Dani Foote

Reviewed by:

Shawn McIsaac

Appendix A – DRAWINGS

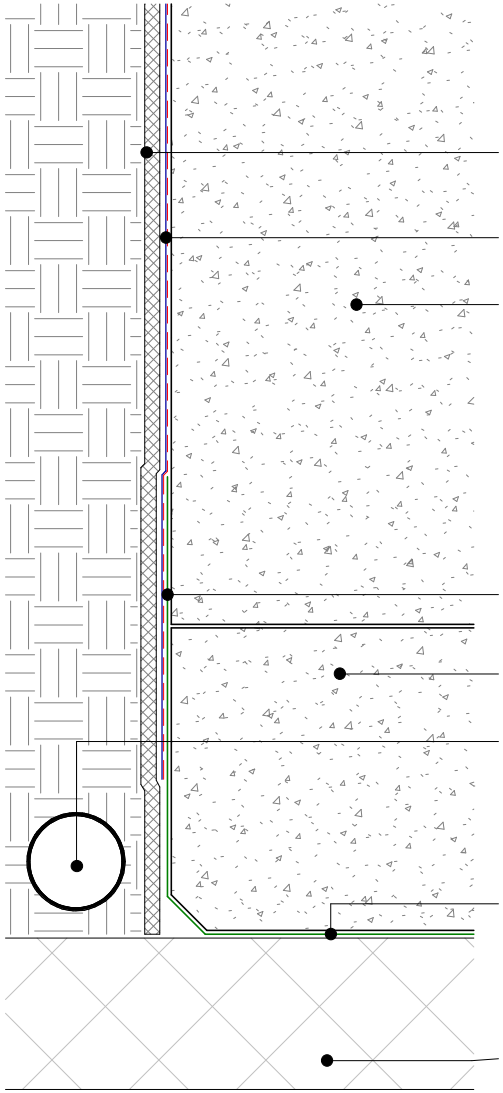
ARDEX TANKING DRAWING LIST

DRAWING NO.	SHEET TITLE	DATE
ATT-00	DRAWING LIST	21/08/2020
ATT-01	FLUSH WALL TO FOUNDATION	21/08/2020
ATT-02	HEEL WALL TO FOUNDATION	21/08/2020
ATT-03	FOUNDATION TO SLAB MEMBRANE	21/08/2020
ATT-04	FOUNDATION TO SLAB DPM	21/08/2020
ATT-05	WALL TO SLAB MEMBRANE	21/08/2020
ATT-06	WALL TO SLAB DPM	21/08/2020
ATT-07	INTERNAL / EXTERNAL CORNER	21/08/2020
ATT-08	OVERSIZED PIPE PENETRATION	21/08/2020
ATT-09	INSITU POURED PIPE PENETRATION	21/08/2020
ATT-10	SLAB PENETRATION	21/08/2020
ATT-11	RAISED PILE	21/08/2020
ATT-12	FLUSH PILE	21/08/2020
ATT-13	CONTROL JOINT	21/08/2020
ATT-14	COLD POUR JOINT	21/08/2020
ATT-15	FGL OPTION 1	21/08/2020
ATT-16	FGL OPTION 2	21/08/2020
ATT-17	FGL OPTION 3	21/08/2020
ATT-18	FGL TERMINATION BAR	21/08/2020

DRAWING LIST
SHEET TITLE

DWG NO. ATT-00
DATE 21/08/2020
SCALE **NOT TO SCALE**

*Drainage coil omitted in hydrostatic situations



ARDEX DRS 10 GC drainage, high density insulation or combination with ARDEX DRS 10 GC installed over HD insulation

ARDEX WPM 195 applied over ARDEX WPM 240 or ARDEX WPM 247 primer

Concrete wall

100

100

ARDEX WPM 196 membrane loose laid with torched laps and mineral chip facing concrete pour

Concrete slab

Drainage coil (to be omitted in hydrostatic situations)

ARDEX WPM 196 membrane loose laid with torched laps and mineral chip facing upwards

Site concrete, high density insulation, sand blinding or mud slab approved substrates

ARDEX TANKING

FLUSH WALL TO FOUNDATION

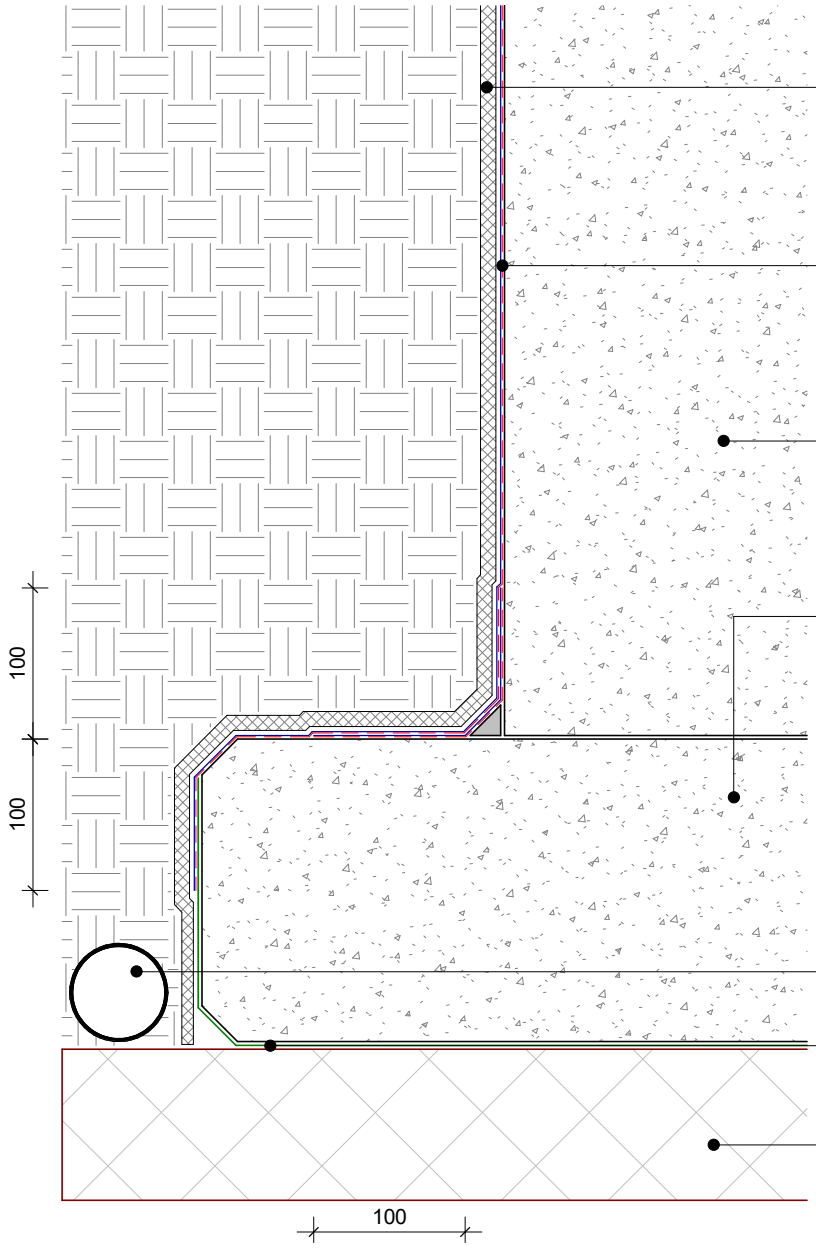
SHEET TITLE

DWG NO. ATT-01

DATE 21/08/2020

SCALE As indicated

*Drainage coil omitted in hydrostatic situations



ARDEX DRS 10 GC drainage, high density insulation or combination with ARDEX DRS 10 GC installed over HD insulation

ARDEX WPM 195 applied over ARDEX WPM 240 or ARDEX WPM 247 primer

Concrete wall

Concrete slab

Drainage coil (to be omitted in hydrostatic situations)

ARDEX WPM 196 membrane loose laid with torched laps and mineral chip facing upwards

Site concrete, high density insulation, sand blinding or mud slab approved substrates

ARDEX TANKING

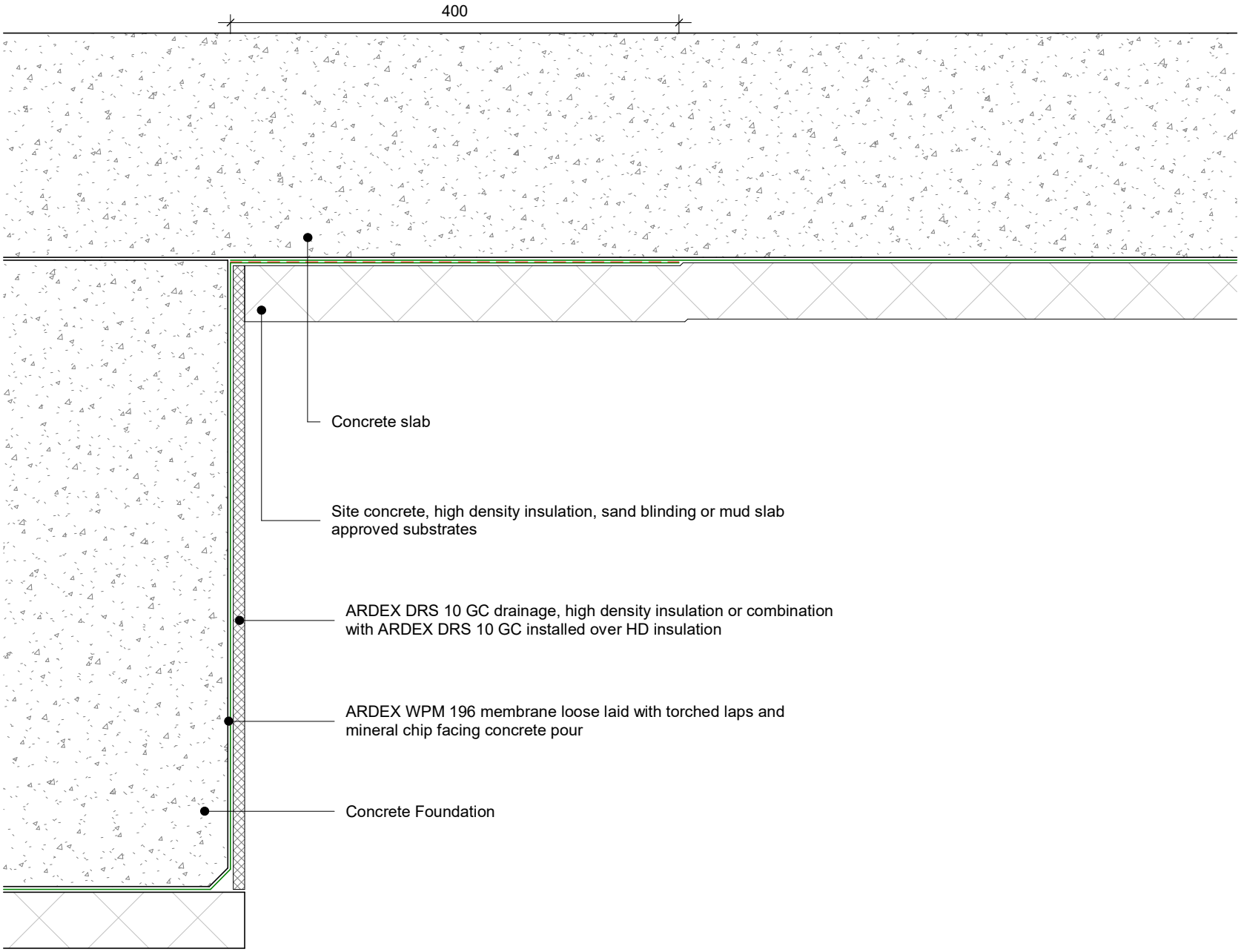
HEEL WALL TO FOUNDATION

SHEET TITLE

DWG NO. ATT-02

DATE 21/08/2020

SCALE As indicated



ARDEX TANKING

FOUNDATION TO SLAB MEMBRANE

SHEET TITLE

DWG NO. ATT-03

DATE 21/08/2020

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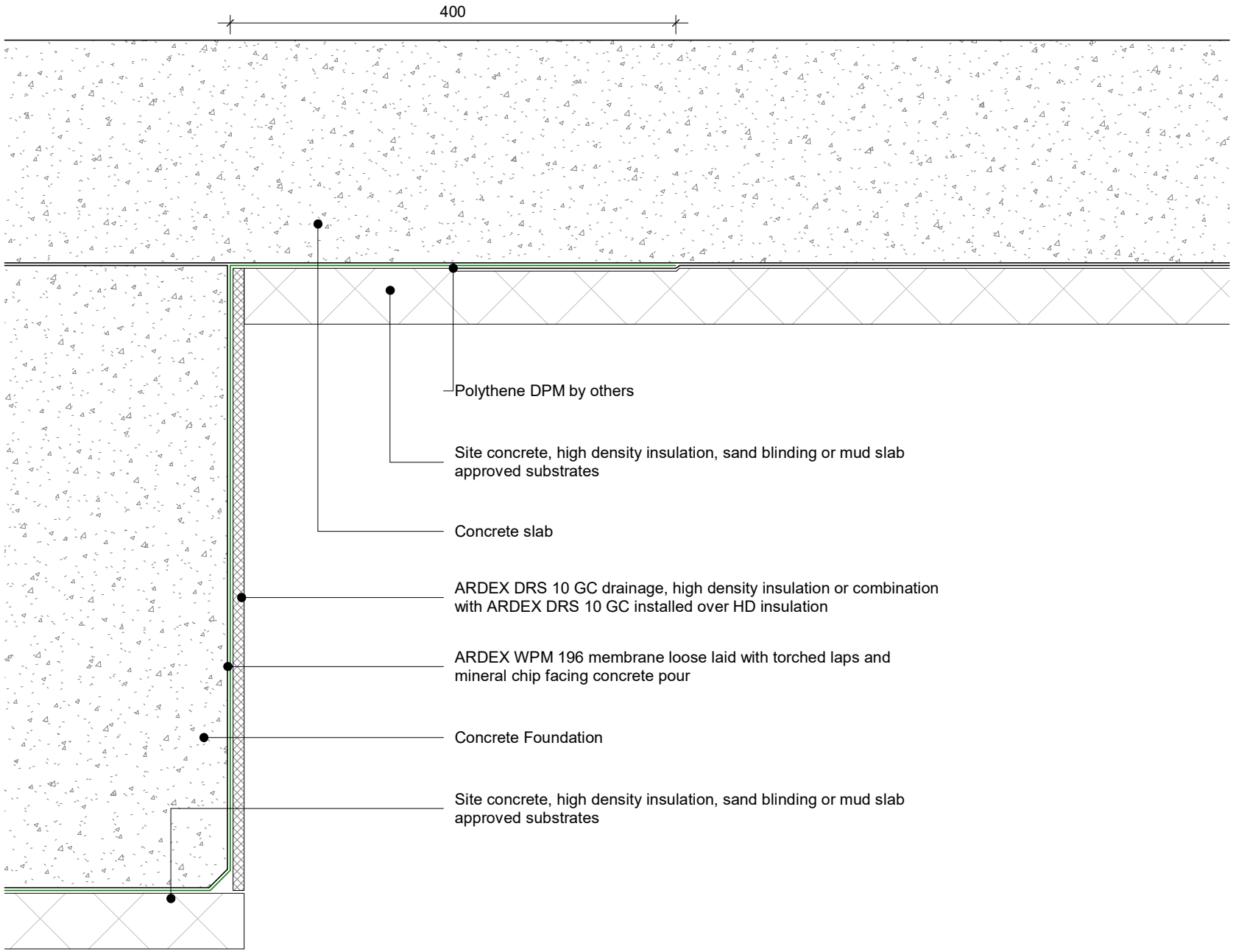

ARDEX TANKING

FOUNDATION TO SLAB DPM

SHEET TITLE

DWG NO. ATT-04

DATE 21/08/2020

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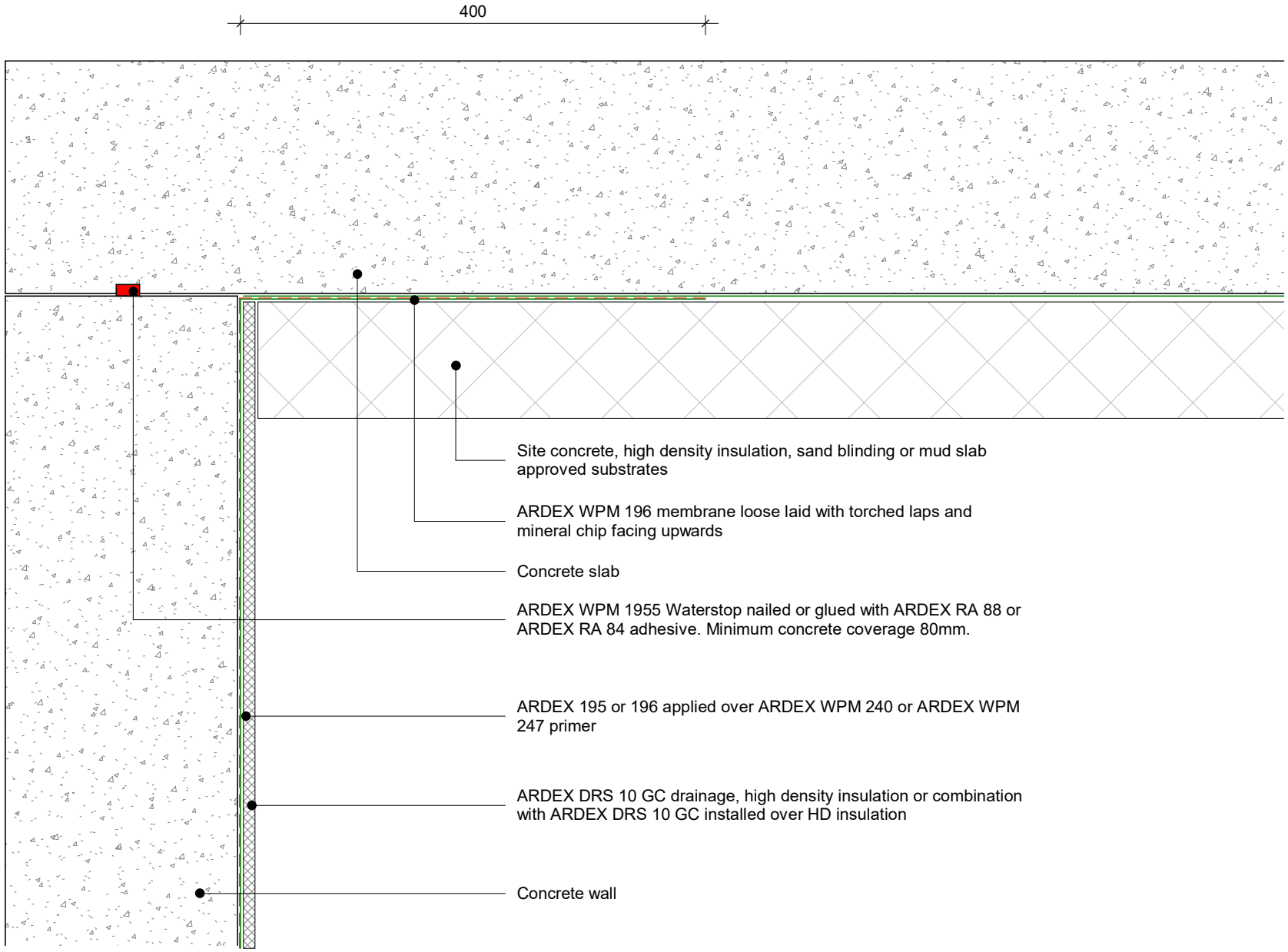

ARDEX TANKING

WALL TO SLAB MEMBRANE

SHEET TITLE

DWG NO. ATT-05

DATE 21/08/2020

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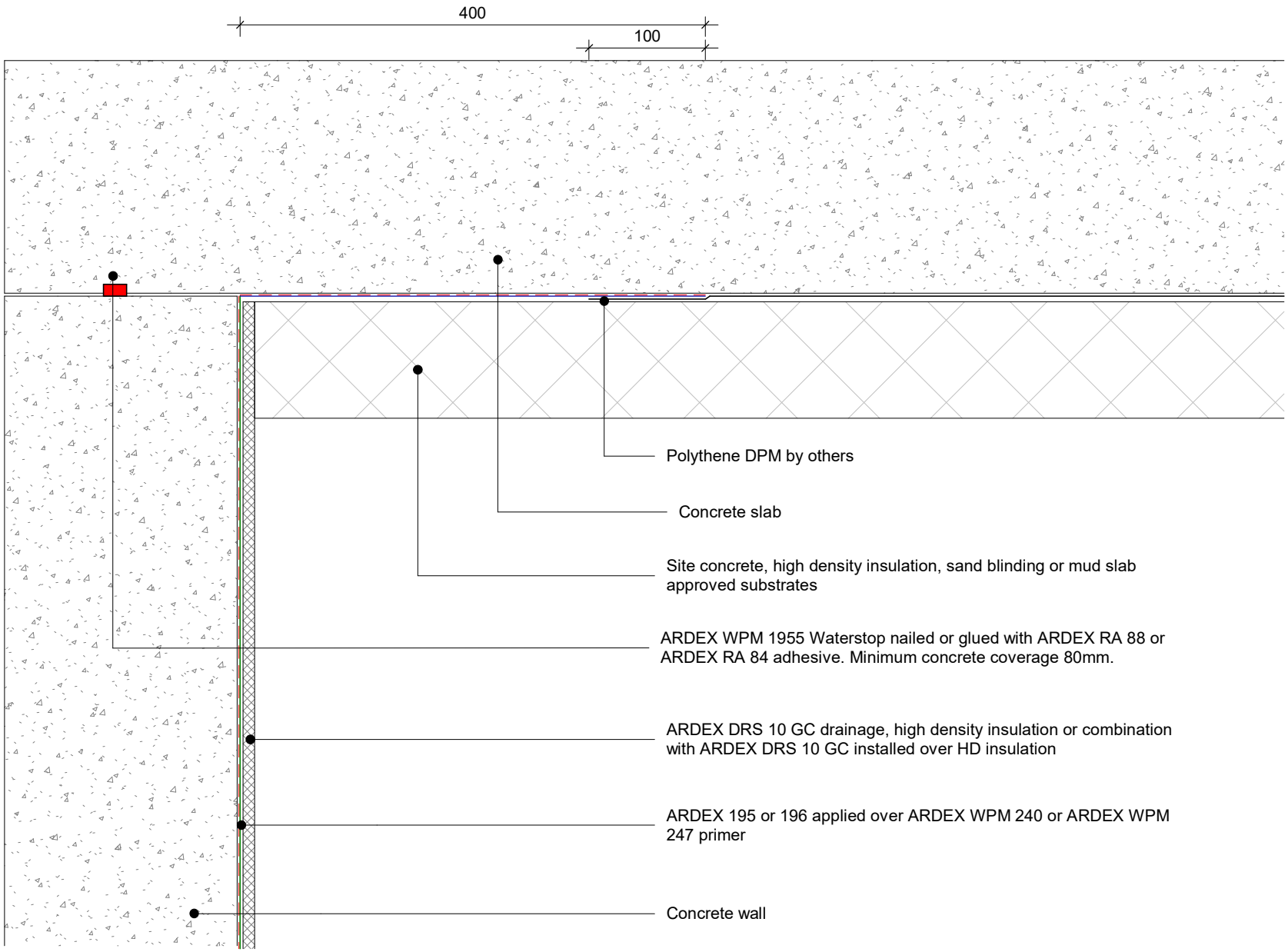

ARDEX TANKING

WALL TO SLAB DPM

SHEET TITLE

DWG NO. ATT-06

DATE 21/08/2020

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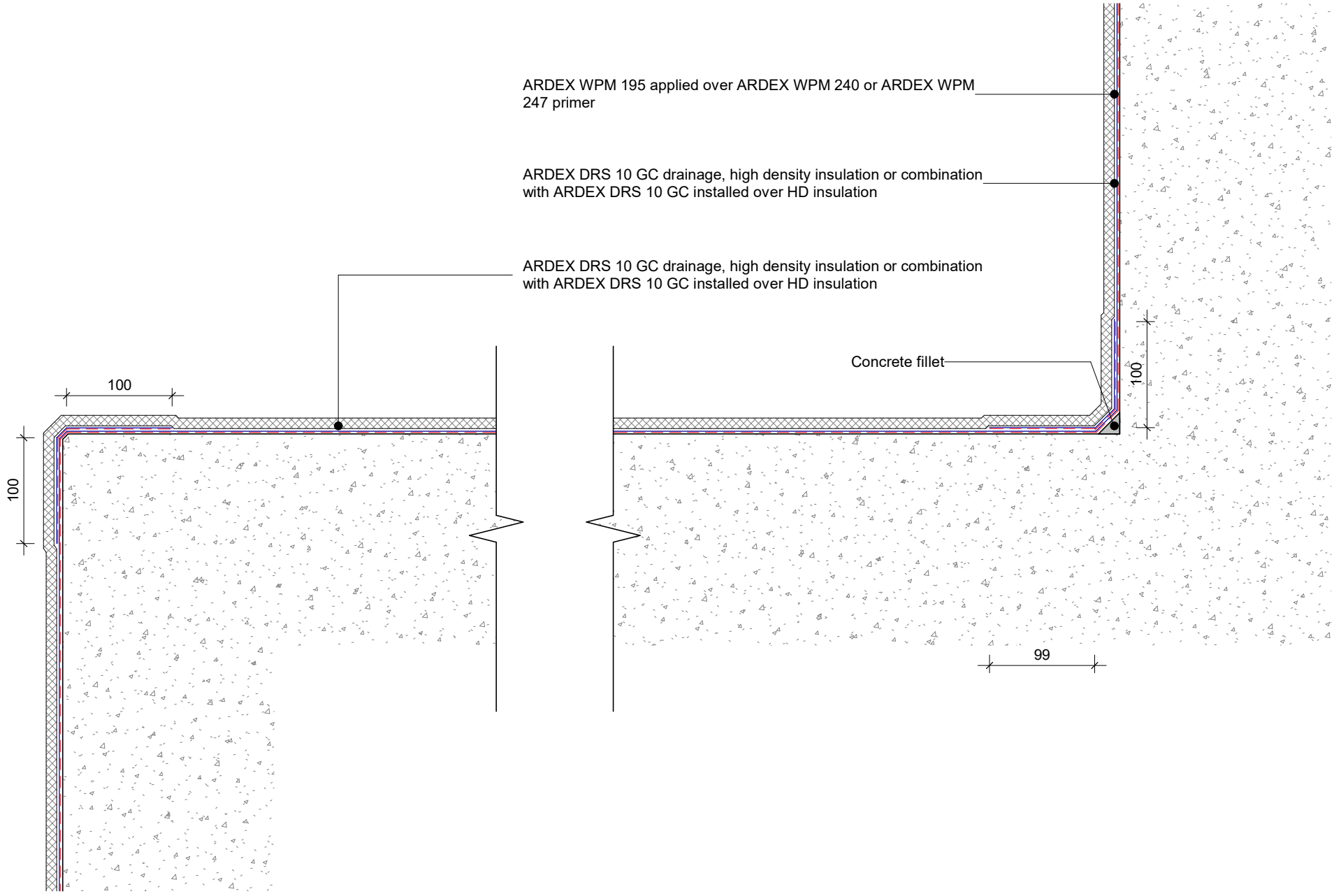

ARDEX TANKING

INTERNAL / EXTERNAL CORNER

SHEET TITLE

DWG NO. ATT-07

DATE 21/08/2020

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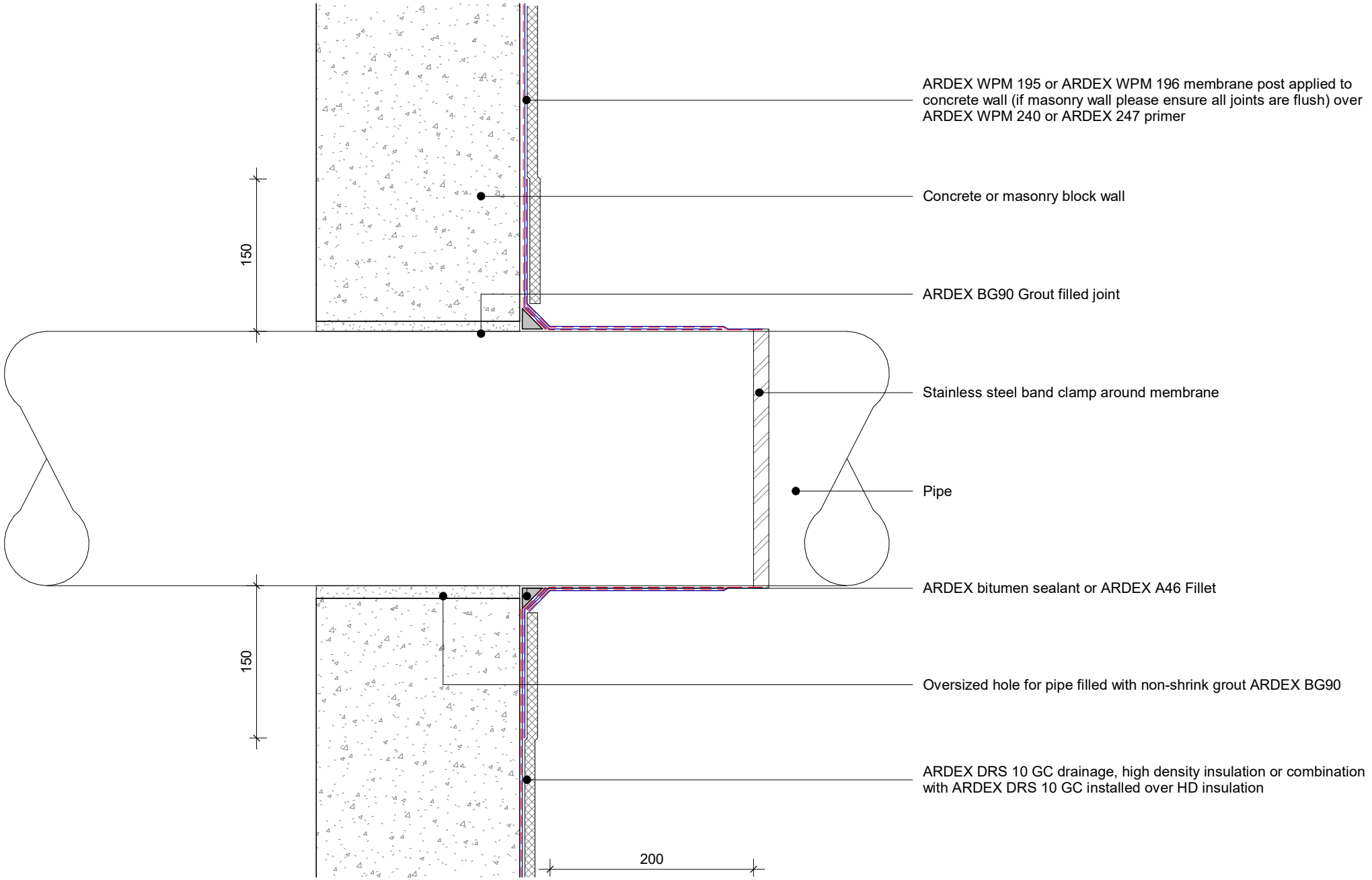

ARDEX TANKING

OVERSIZED PIPE PENETRATION

SHEET TITLE

DWG NO. ATT-08

DATE 21/08/2020

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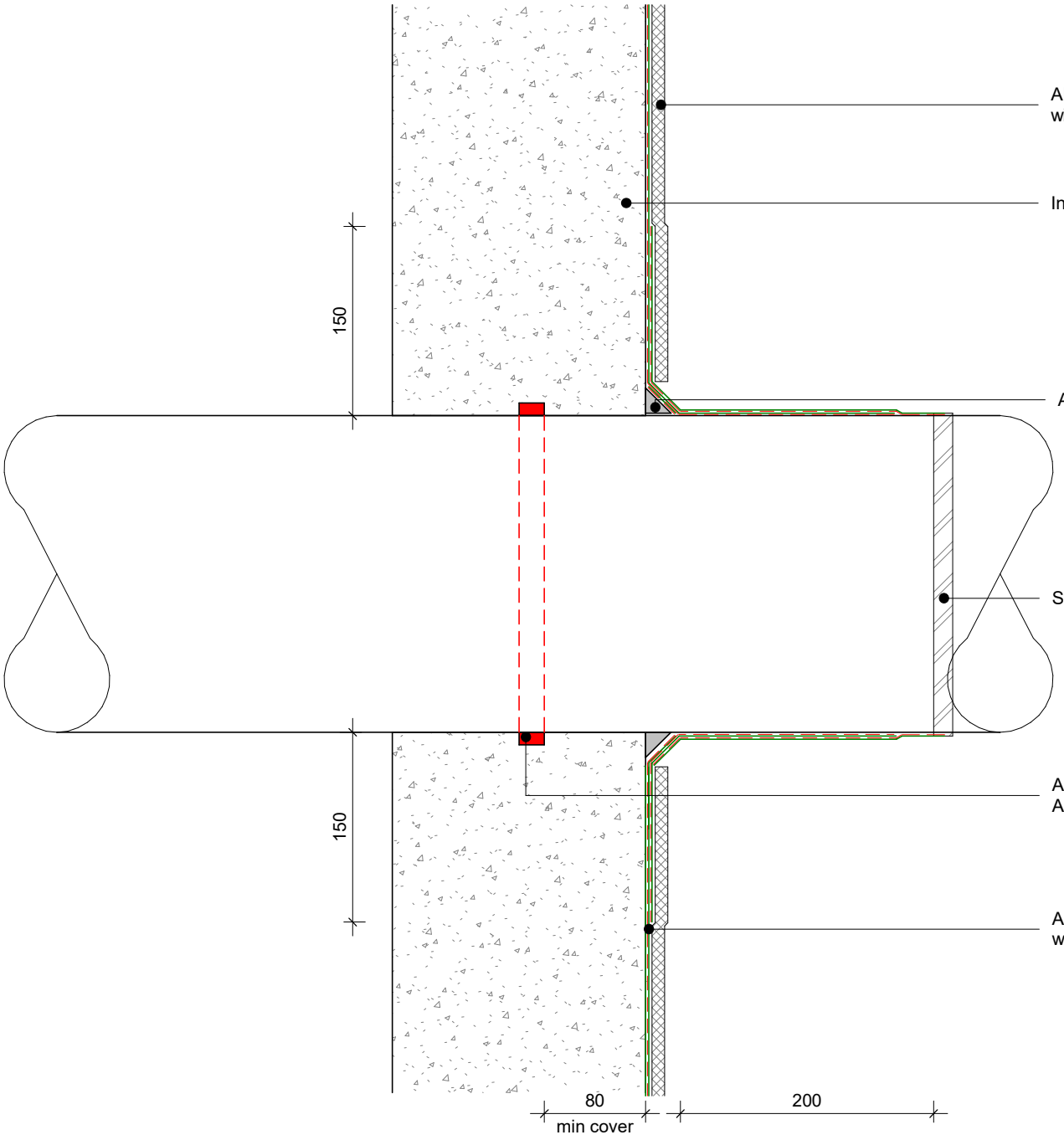

ARDEX TANKING

INSITU POURED PIPE PENETRATION

SHEET TITLE

DWG NO. ATT-09

DATE 21/08/2020

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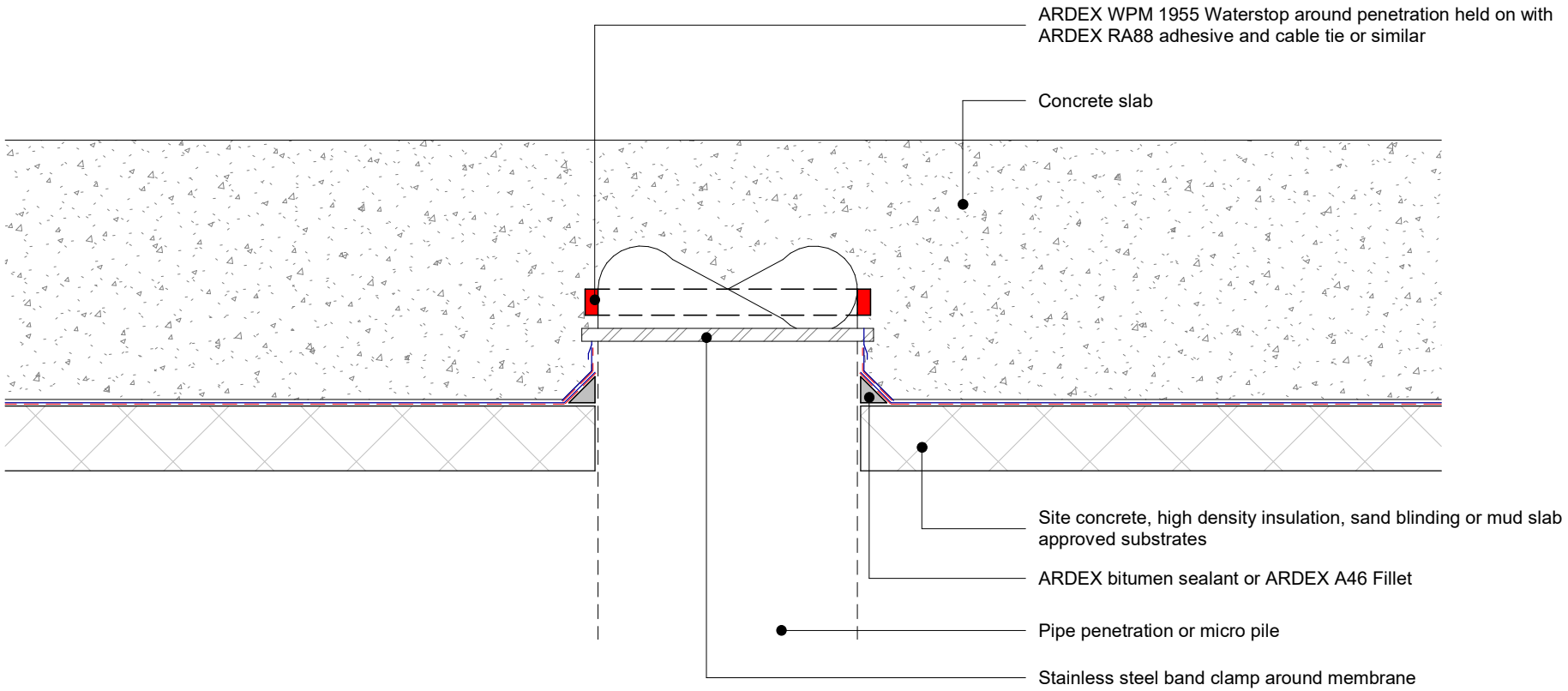


ARDEX TANKING

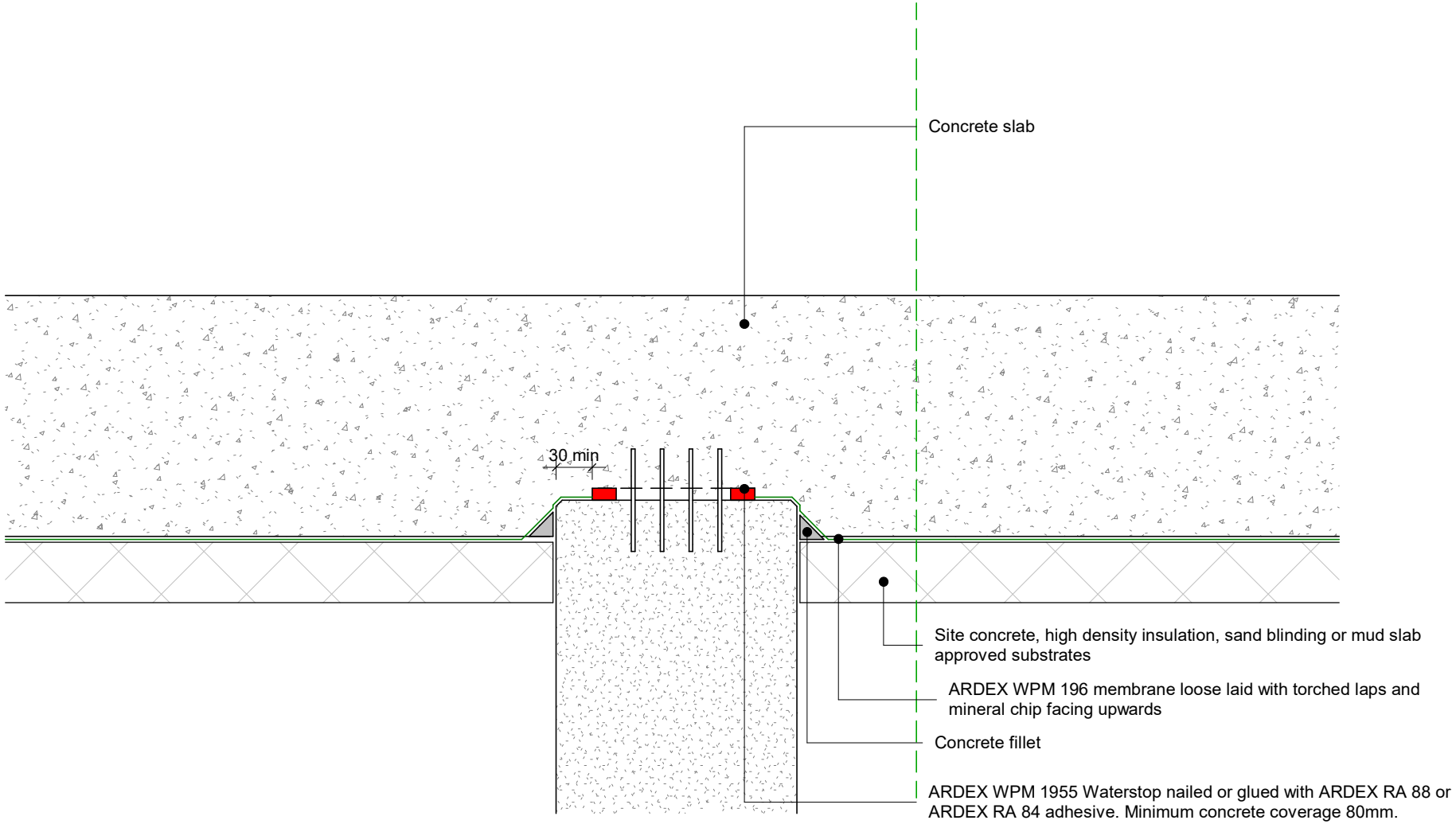
SLAB PENETRATION

SHEET TITLE

DWG NO. ATT-10

DATE 21/08/2020

SCALE 1 : 5 @ A4



ARDEX TANKING

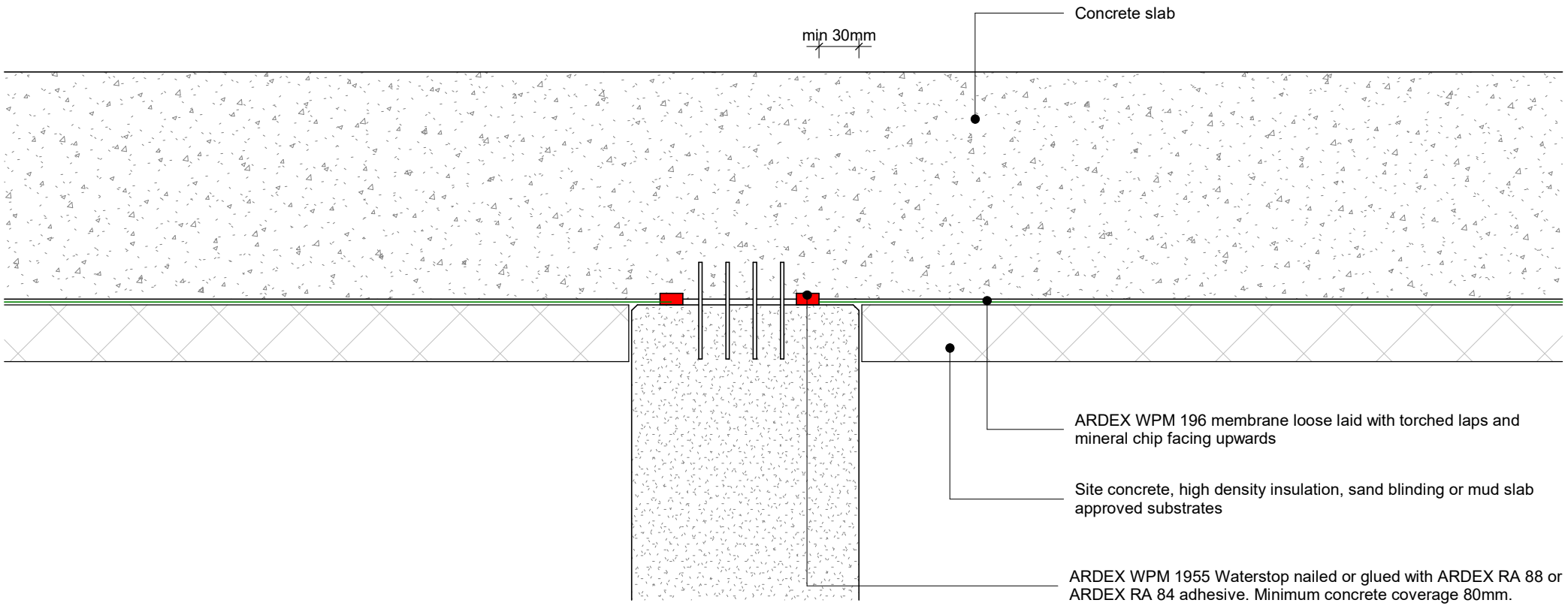
RAISED PILE

SHEET TITLE

DWG NO. ATT-11

DATE 21/08/2020

SCALE 1 : 5 @ A4



ARDEX TANKING

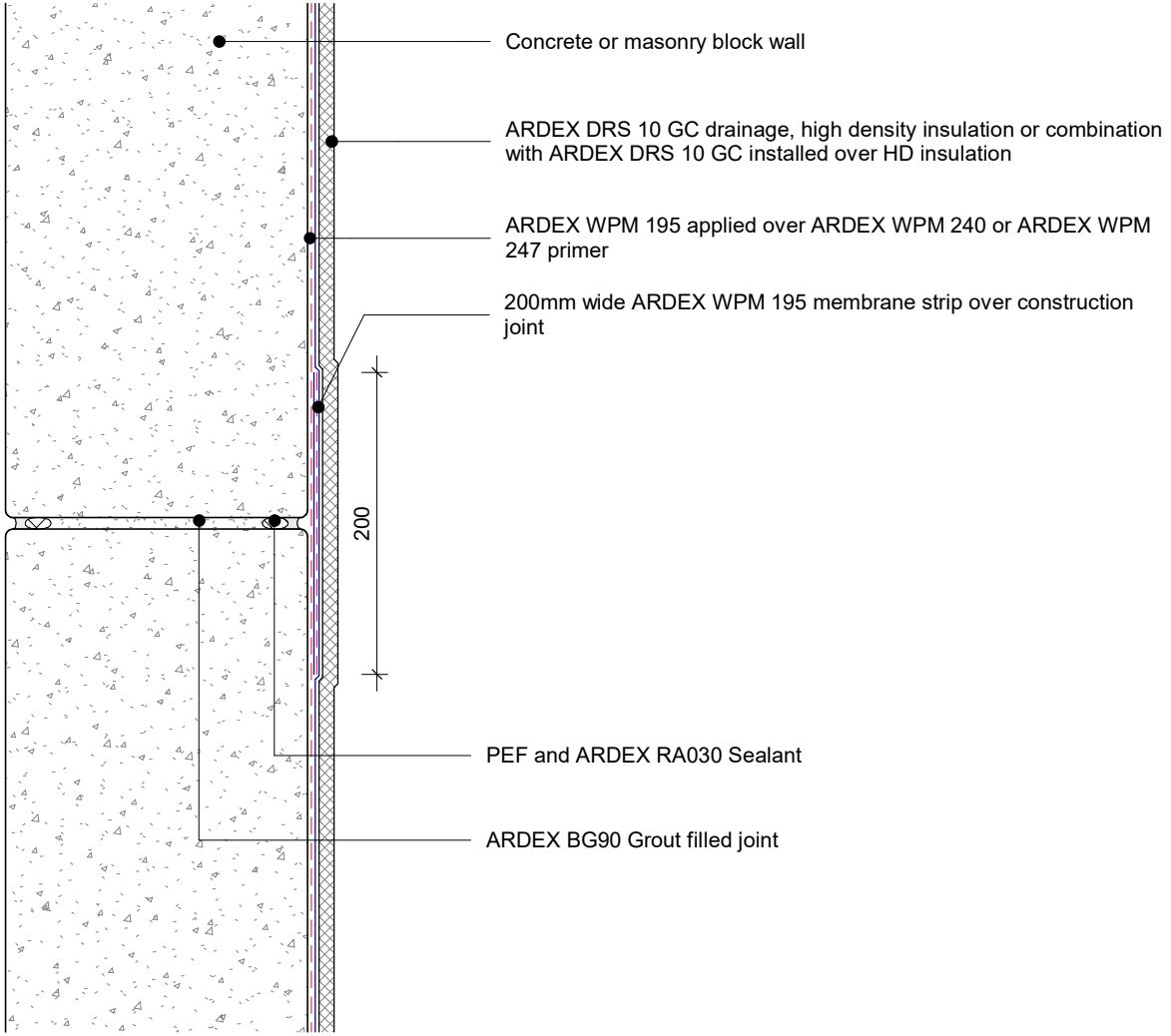
FLUSH PILE

SHEET TITLE

DWG NO. ATT-12

DATE 21/08/2020

SCALE 1 : 5 @ A4



ARDEX TANKING

CONTROL JOINT

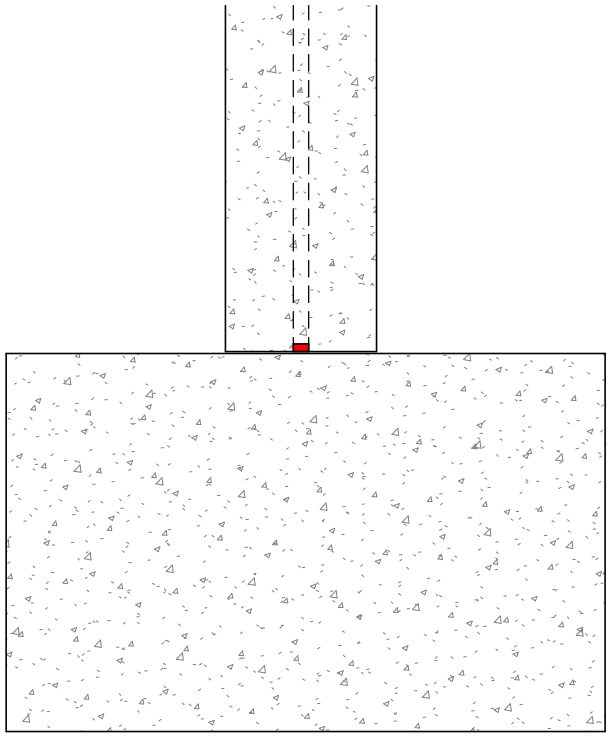
SHEET TITLE

DWG NO. ATT-13

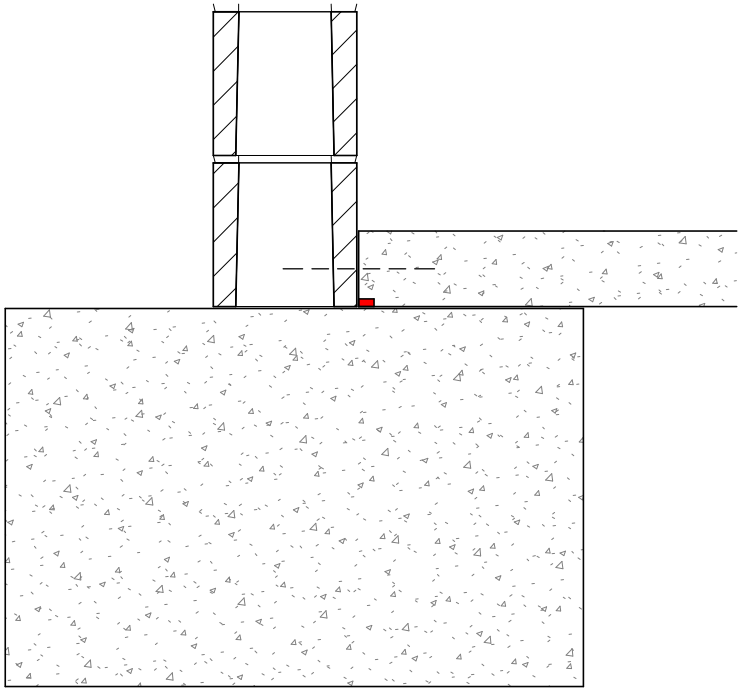
DATE 21/08/2020

SCALE 1 : 5 @ A4

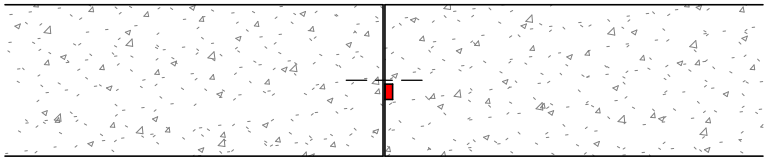
Note: Waterstop ARDEX WPM 1955 is installed into cold pour construction joints. Waterstop ARDEX WPM 1955 requires minimum 80mm of reinforced concrete coverage installed with ARDEX RA 88 or ARDEX RA 84 adhesive or concrete nails. If waterstop is over hydrated replacement is required before concrete pour.



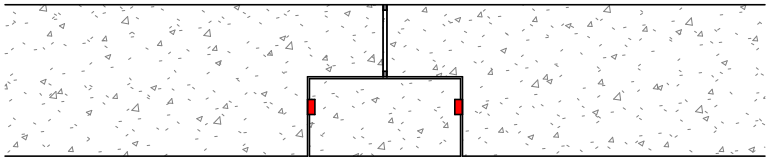
INSITU POURED WALL



PRECAST OR MASONRY WALL TO SLAB



SLAB COLD POUR JOINT



PRECAST PANEL STITCH JOINT

ARDEX TANKING

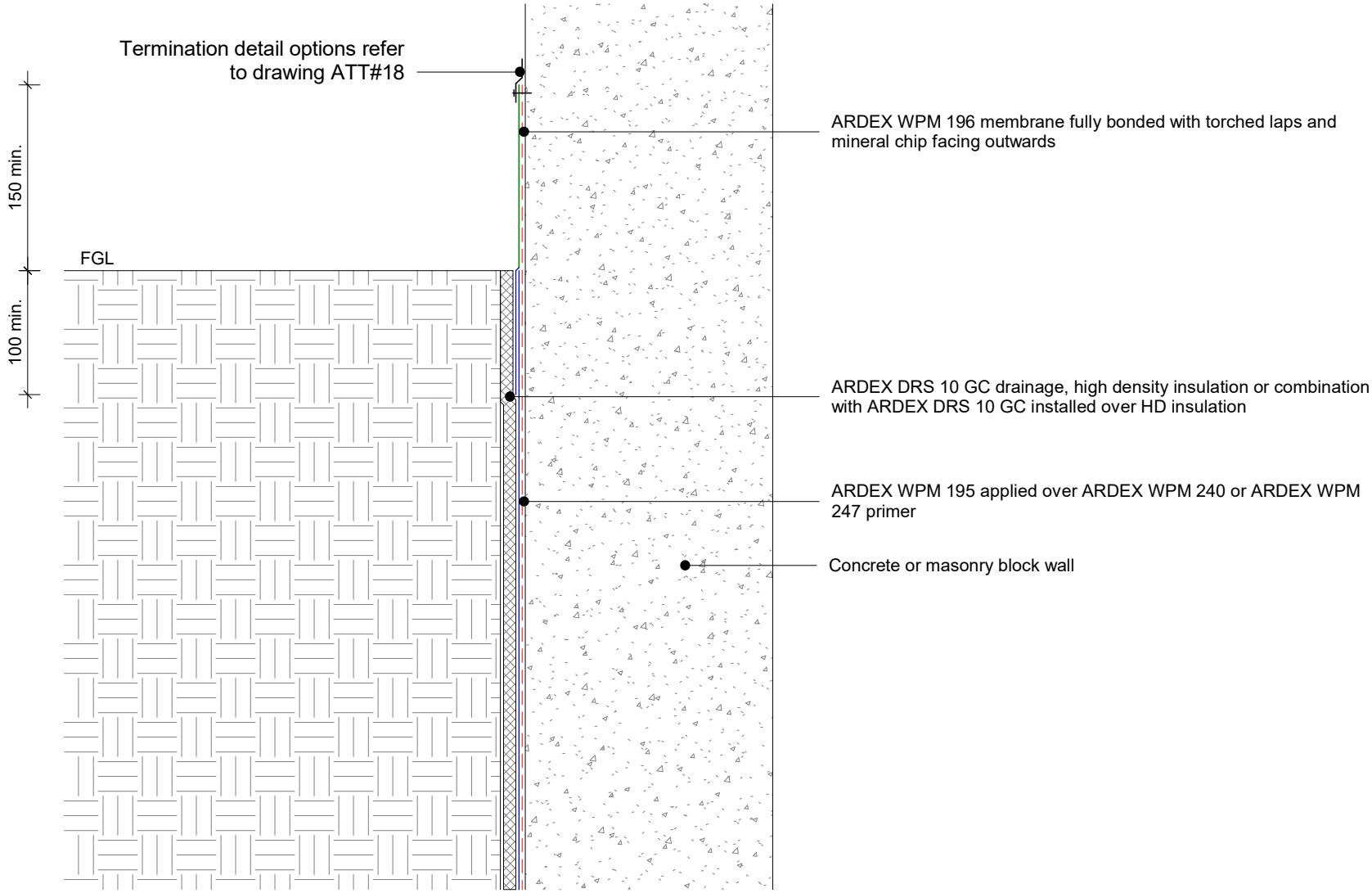
COLD POUR JOINT

SHEET TITLE

DWG NO. ATT-14

DATE 21/08/2020

SCALE As indicated



ARDEX TANKING

FGL OPTION 1

SHEET TITLE

DWG NO. ATT-15

DATE 21/08/2020

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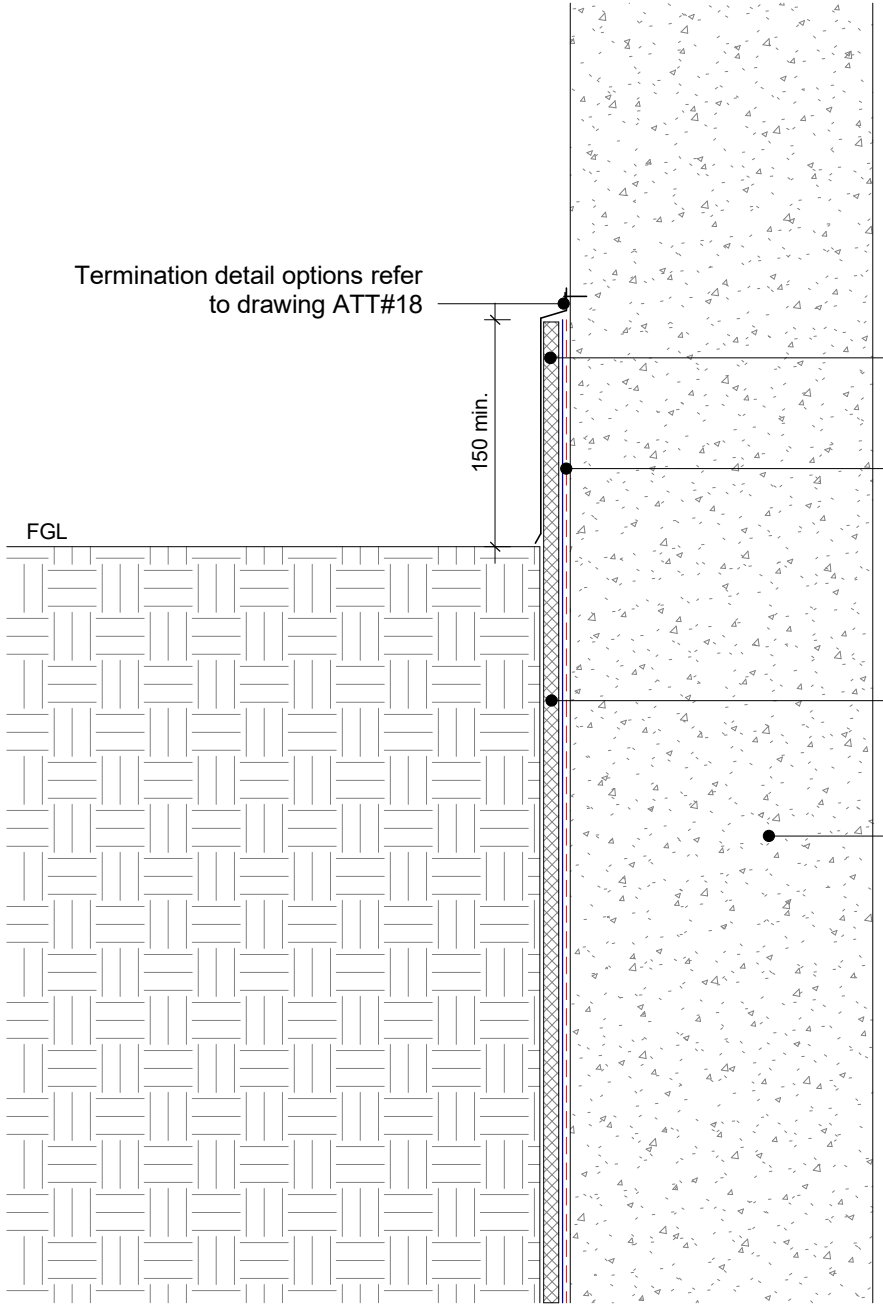

ARDEX TANKING

FGL OPTION 2

SHEET TITLE

DWG NO. ATT-16

DATE 21/08/2020

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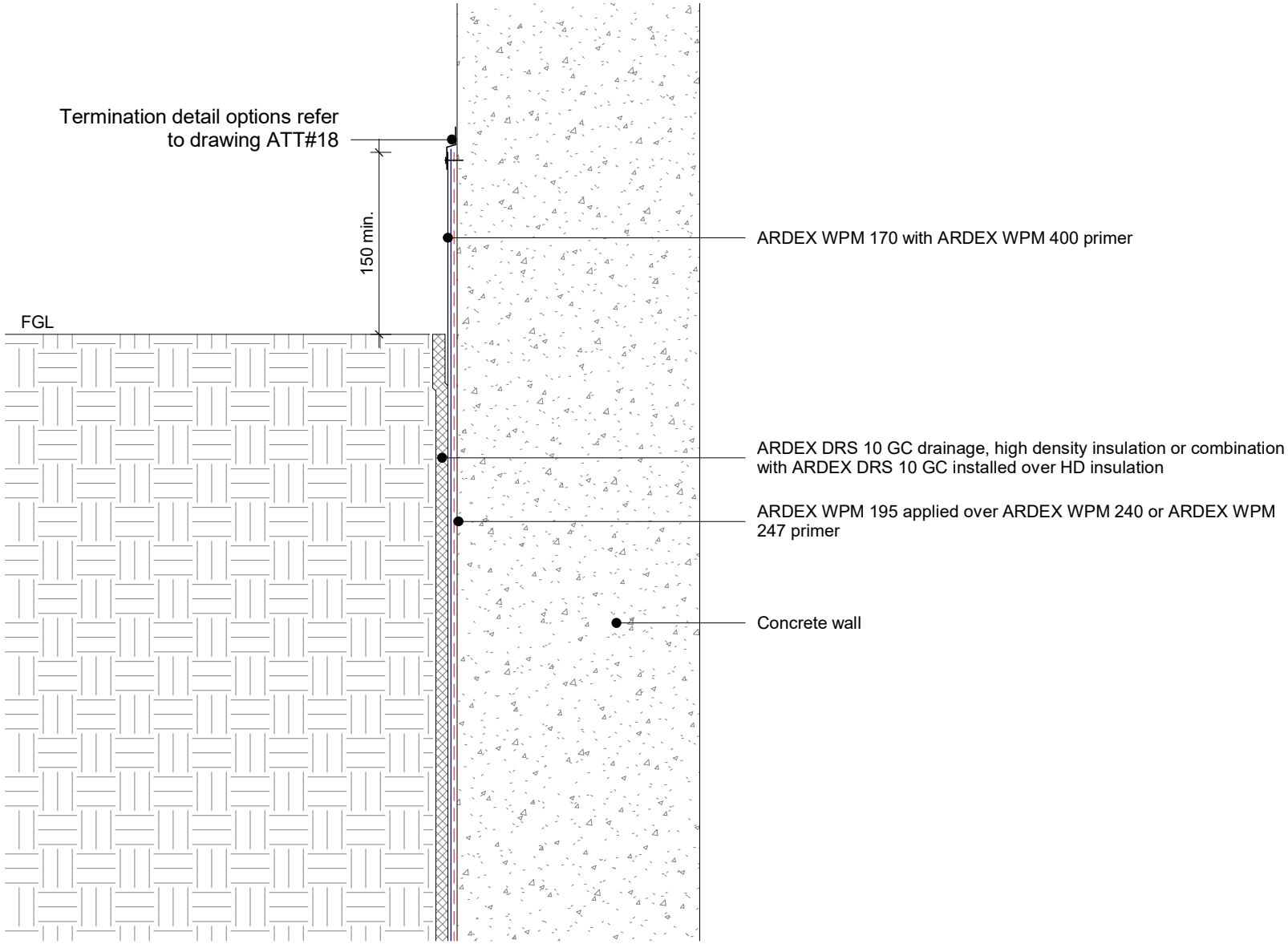

ARDEX TANKING

FGL OPTION 3

SHEET TITLE

DWG NO. ATT-17

DATE 21/08/2020

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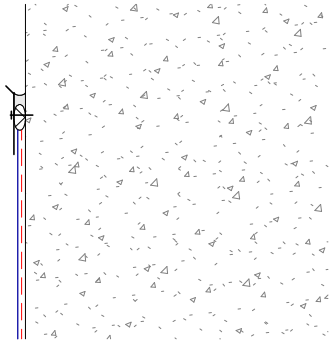
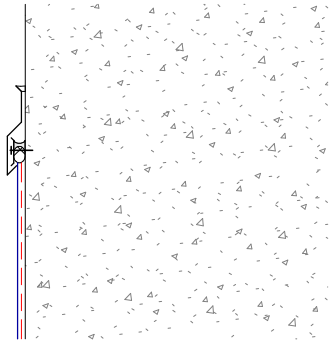
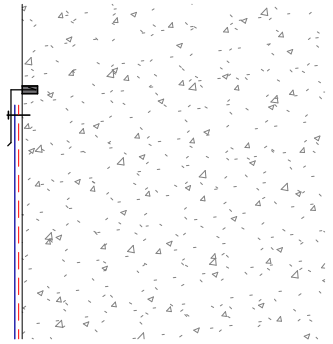


Single termination bar



Double termination bar



Chased termination

Membrane = ARDEX WPM 195
Sealant = ARDEX Bituminous sealant
Termination bar = ARDEX pressure bar

ARDEX TANKING

FGL TERMINATION BAR

SHEET TITLE

DWG NO. ATT-18

DATE 21/08/2020

SCALE 1 : 5 @ A4

Appendix B – SUPPORTING DOCUMENTS

ARDEX Bituminous Roof Sealant

One-Component, Bitumen-Based Sealant

Easy to use

UV-Stable

Good primerless adhesion - Adheres well to many substrates

ARDEX Australia Pty Ltd
20 Powers Road
Seven Hills NSW 2147
1300 788 780
technicalservices@ardexaustralia.com
www.ardexaustralia.com

ARDEX New Zealand Ltd
15 Alfred Street
Onehunga, Auckland 1061
0800 227 339
info@ardexnz.com
www.ardex.co.nz

ARDEX Bituminous Roof Sealant

One-Component, Bitumen-Based Sealant

DESCRIPTION
ARDEX Bituminous Roof Sealant is a one-component, easy-to-use, UV-stable sealant with bitumen-based solvents. It is used for gluing and sealing on roofs. It is ideal for fast repairs of cracks, holes and fractures on roofs and between old bitumen membranes and can be applied over a multitude of surfaces including tin, aluminum, copper, brass, ceramic, bitumen, concrete, plasters, roof tiles and plaster tiles without the use of a primer.

SUBSTRATE PREPARATION
The surface being adhered to must be clean, firm and free of dust, dirt, oil, grease, and other barrier materials. If there are any signs of contamination visible on the old membrane, they have to be thoroughly removed and the sealant has to be applied onto a sound surface. Alcohol and nitro-cleaners can be used for cleaning.

INSTRUCTIONS
The sealant can be applied with a standard caulking gun. Alcohol and nitro-cleaners can be used for cleaning.

NOTE: Not suitable for gluing polyurethane and polystyrene.

SKIN FORMATION TIME
5 – 15 minutes depending on ambient and substrate temperature.

PACKAGING
ARDEX Bituminous Roof Sealant is in a 300ml cartridge.

SHELF LIFE
12 months when stored in the original unopened packaging, in a dry place at 23°C and 50% relative humidity.

SAFETY DATA
Flammable liquid and vapour. Harmful to aquatic life with long lasting effects. Keep away from heat/ sparks/ open flames/ hot surfaces. - No smoking. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. 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, including removal of contaminated clothing. Wear protective gloves, clothing, eye and face protection. Avoid inhaling dust/ fume/ gas/ mist/ vapours/ spray. Ensure adequate ventilation during mixing and application. Store locked up. Check with your local Council regarding the disposal of contents. Keep out of the reach of children. Call the Poisons Information Centre on 131 126 (AUS) and 0800 764 766 (NZ) or call a doctor if you feel unwell. Additional information is in the Safety Data Sheet SDS at www.ardexaustralia.com

TECHNICAL DATA

UNCURED SEALANT

Chemical basis:	Bitumen with solvents
Form:	Thick black paste
Curing mechanism:	Solvent evaporation
Specific gravity:	1440 ± 30 kg/m^3
Dry material content:	89 – 94 %
Inflammation point in closed container:	>30 °C
Skin formation time:	5 – 15 minutes
Application temperature:	+5°C to +35°C

CURED SEALANT

Consistency:	Plastic
Temperature resistance:	-30°C to +80°C
Hardness Shore A:	10 – 15

INTENTIONALLY LEFT BLANK

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) 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 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. 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 datasheet was issued in December 2019 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.

ARDEX BR 345

MICROTEC® Fibre-Reinforced, High Resistivity, Polymer-Modified, Structural Concrete Patching and Repair Mortar

Polymer modified & shrinkage compensated

Medium weight with excellent adhesion to concrete

MICROTEC® fibre-reinforced

High resistivity (>15,000Ω cm)

Contains active corrosion inhibitor

Approved for use with potable (drinking) water - independent testing confirms conformity with the requirements of AS4020.2005

MICROTEC
TECHNOLOGY

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Internet: www.ardex.co.nz

ARDEX BR 345

MICROTEC® Fibre-Reinforced, High Resistivity, Polymer-Modified, Structural Concrete Patching and Repair Mortar

DESCRIPTION

ARDEX BR 345 MICROTEC® Fibre-Reinforced, High Resistivity, Polymer-Modified, Structural Concrete Patching and Repair Mortar is designed for reinstating concrete surfaces damaged through concrete spalling and other chemical or mechanical causes. ARDEX BR 345 is a high-build patching mortar and is capable of being applied up to a thickness of 80mm on vertical, horizontal and overhead surfaces. It is designed to be used for applications where high resistivity of the mortar is required. For applications where anodes are required, use ARDEX BR 340 instead.

- Polymer modified
- Shrinkage compensated
- MICROTEC® fibre-reinforced
- Medium weight
- Excellent adhesion to concrete
- Contains active corrosion inhibitor
- High resistivity (>15,000Ω cm)
- Approved for use with potable (drinking) water - independent testing confirms conformity with the requirements of AS4020.2005

PREPARATION

The substrate must be clean, sound and free from all grease, oil, dust and other surface contaminants such as curing membranes. Damaged or contaminated concrete must be removed to obtain a good bond to the substrate. Cut the edges of the repair vertically to a minimum depth of 10mm. All surface laitance must be removed. Exposed reinforcing steel should be cleaned to remove all residual rust and concrete residue. In accordance to best practice, as outlined in the ACRA Guide to Concrete Repair and Protection Concrete HB84-2006 Chapter 6, concrete should be removed from around and behind all corroding rebar to avoid future contamination of the repaired area. Exposed reinforcing must be cleaned and protected with ARDEX BR 10 ZP Zinc-rich Primer in a continuous film.

PRIMING

The prepared substrate should be pre-soaked for 24 hours, but at least 2 hours before applying ARDEX BR 345. The surface should be mat damp but without standing water. ARDEX BR 345 does not require priming on a properly prepared substrate. If priming is required, the substrate should be primed by employing one of the following methods:

1. A slurry bond coat of ARDEX BR 345 should be made to a stiff, brushable consistency and applied to the dampened surface.
2. ARDEX WR Prime should be applied and worked into the substrate. Once the ARDEX WR Prime has reached initial cure, ARDEX BR 345 can be applied.

If a bonding bridge is used, apply the ARDEX BR 345 as soon as the bridge is tacky enough to hold the weight of the mortar. ARDEX BR 345 should be applied wet-on-wet. Do not let the bonding layer dry out completely. If the surface is too wet or too dry, application of ARDEX BR 345 may be difficult.

Priming for reinforcement steel

Use ARDEX BR 10 ZP Zinc-rich Primer as primer for steel reinforcement in concrete. Apply ARDEX BR 10 ZP in a continuous film; apply a second coat if needed. ARDEX BR 10 ZP should be cured prior to applying the repair mortar.

MIXING

Use approximately 3.0 - 3.3L water per 20Kg bag of ARDEX BR 345. Measure the appropriate amount of water into a clean suitable sized pail and then add approximately half to two-thirds of the powder to the water while mixing with a heavy duty electric drill and spiral mixing paddle on slow-medium speed (approx. 400-600 rpm). Mix to fully wet-out the powder; then, add the remaining powder fully mixing to disperse the powder. Once all of the powder has been added, mix for approximately 2 to 3 minutes to fully homogenise. Let the mixed mortar sit for 1 – 2 minutes, then briefly mix the mortar again prior to placement.

APPLICATION

ARDEX BR 345 is to be applied onto the prepared primed substrate. Make sure that the patching mortar is applied whilst the priming layer is still wet (wet-on-wet). Apply using a trowel or by hand (wearing chemically resistant gloves). Make sure that the material is sufficiently forced and compacted into cracks and holes to ensure that all voids are filled.

ARDEX BR 345

MICROTEC® Fibre-Reinforced, High Resistivity, Polymer-Modified, Structural Concrete Patching and Repair Mortar

Note: Minimum application thickness is 10mm. If repair mortar slumps, remove all ARDEX BR 345 and re-apply after re-priming the substrate, then apply the repair mortar at a reduced thickness.

FINISHING
Once the mortar has set, and the surface is hard enough, work can begin on the surface finish. The surface finish can be dense and smooth by using a wooden or plastic float, or coarse and sandy by using a sponge to give the required effect.

CURING
It is recommended to apply an approved curing compound immediately after finishing. Curing compounds should be sprayed onto the surface of the finished ARDEX BR 345 according to the Technical Datasheet of the curing compound.

OVERCOATING
The repaired patch can be rendered over with a suitable ARDEX Render or Coating. Refer to relevant Technical Datasheets for application of overcoats.

SET TIMES
Pot Life @ 23°C: 30 – 45 min
Initial Set: 45 - 90 min
Final Set: 90 min - 3 hrs

PACKAGING
ARDEX BR 345 is packed in polylined paper sacks – net weight 20kg.

COVERAGE
20kg of powder makes approximately 12.6 litres of mortar. At 10mm thickness: approximately 1.25m^2

SHELF LIFE
ARDEX BR 345 has a shelf life of 12 months when stored in the original unopened packaging, in a dry place at 23°C and 50% relative humidity.

CLEAN UP
Clean all tools in water immediately after use.

Pay Attention to the following:
The repaired area should always be overcoated with an appropriate coating or sealer. ARDEX BR 345 is not meant to be left exposed.

CLEAN UP
Clean all tools in water immediately after use.

SAFETY DATA
This product may cause irritation and an allergic reaction to the skin. It may cause serious eye injury and irritation to the respiratory system. 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, eye and face protection. Avoid inhaling dust/fumes/gas/mist/vapours/spray. Ensure adequate ventilation during mixing and application. Store locked up. Check with your local Council regarding the disposal of contents, dispose of packaging thoughtfully and recycle where possible. Keep out of the reach of children. Call the Poisons Information Centre on 131 126 (AUS) and 0800 764 766 (NZ) or call a doctor if you feel unwell. Additional information is in the Safety Data Sheet (SDS) at www.ardexaustralia.com

TECHNICAL DATA

Water	3.0 - 3.3l/20kg
Wet Density	~1.88g/cc
Pot Life @23ºC	45 - 90m
Initial Set	45 - 90m
Final Set	90m - 3h

EN 1504-3 R3 TESTING DATA

	Test Method	R3 Requirements	Typical Results
Compressive Strength	EN 12190	≥ 25MPa	**1d** ~10MPa **7d** 20-30MPa **28d** 30-45MPa
Chloride Ion Content	EN 1015-17:2000	≤ 0.05%	0.005%
Adhesive Bond	EN 1542	≥ 1.5MPa	≥ 1.5MPa
Shrinkage and Expansion	EN 12617-4	≥ 1.5MPa	≥ 1.5MPa
Carbonation Resistance	EN 13295:2004	d ≤control concrete	pass(C0.45)
Elastic Modulus	AS 1012.17*	≥ 15GPa	16.9GPa
Coeficient of Thermal Expansion	AASHTO T336-11**	declared value	10.1ms/°C
Capillary Absorption	EN 13057:2002	≤ 0.5kg/($m^{-2}Xh^{-0.5}$)	0.10kg/($m^{-2}Xh^{-0.5}$)

ADDITIONAL TECHNICAL DATA

	Test Method	Typical Results
Flexural Strength	EN 12190	**28d** ~8MPa
Drying Shrinkage 23ºC 50% RH	AS 1478.2-2005	**7d** <400ms **28d** <700ms
Bulk Resistivity	internal method	**28d** >15,000 Ω.cm **56d** >20,000 Ω.cm

*AS1012.17 done in place of EN 13412

**AASHTO T336-11 done in place of EN1770

ms = micro strains

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) 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".

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ARDEX DRS 10 GC

Prefabricated Draining Protection Membrane

Cuspated HDPE drainage and protection membrane for use in below-grade applications

Provides effective protection of the waterproofing membrane

Provides effective drainage of sub-surface water

Excellent compressive strength

High resistance to concrete alkali

100% recycled material

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ARDEX DRS 10 GC

Prefabricated Draining Protection Membrane

DESCRIPTION

ARDEX DRS 10 GC is a cuspated HDPE sheet with a geotextile layer that provides effective drainage and protection against backfill. ARDEX DRS 10 GC provides excellent protection and drainage capabilities and a high compressive strength to resist heavy pressure loads.

The geotextile layer of ARDEX DRS 10 GC effectively protects against backfill materials while allowing water to migrate into the core channel providing consistent ventilation and hydrostatic relief.

USES

ARDEX DRS 10 GC is used as a protection and drainage membrane against waterproofed below-grade structures such as basement foundations, retaining walls, planters and bridge abutments.

SURFACE PREPARATION

Ensure the ARDEX waterproofing membrane is installed in accordance with the appropriate product datasheet. Ensure that any damage or sources of damage are repaired or removed.

Ensure that the waterproofing membrane, footing and surrounding areas are cleared of any debris, dust or dirt.

INSTALLATION

Mark out around the structure where the estimated final grade of the backfill will reach. Starting near the centre of the structure, unroll ARDEX DRS 10 GC with the geotextile facing toward the backfill. Ensure that the membrane is taught and spot fix in place with dabs of ARDEX Bituminous Sealant against the underlying membrane.

Merge adjoining sheets by overlapping them 200 to 300mm and interlocking the cuspated dimples. Fix the geotextile overhang by securing with a canvas tape.

Any penetrations should be detailed by cutting the ARDEX DRS 10 GC vertically so that the cut extends 150mm past the penetration, and trimming around so that it fits as tightly as possible. If possible, install adjoining sheets so that there is a 150mm overlap on the penetration.

STORAGE

ARDEX DRS 10 GC has an indefinite shelf life when stored in good conditions, between 5°C and 30°C. Store rolls horizontally in dry conditions out of direct sunlight. Store away from sources of puncture and physical damage. Store away from ignition sources and open flame.

COVERAGE

ARDEX DRS 10 GC comes in a roll of 40m^2.

The actual coverage achieved in practice is affected by installation technique, specifics of building design, and substrate differences.

PACKAGING

ARDEX DRS 10 GC is packaged in rolls of 20m x 2m x 10mm weighing approximately 31kg.

PRECAUTIONS

ARDEX DRS 10 GC is non-hazardous in normal usage, however good hygiene practices should be followed. For the latest technical or health and safety information on this product, consult the current product data sheet online at: www.ardex.co.nz

Exercise caution when lifting, moving, transporting, storing or handling membrane rolls to avoid sources of punctures and possible physical damage.

ARDEX DRS 10 GC must be protected from UV and should not left exposed for longer than 28 days.

Toll Free Technical Services:
1800 224 070 (Australia)
0800 227 339 (New Zealand)

TECHNICAL DATA

CHARACTERISTICS	TEST METHOD	UNITS	NOMINAL VALUE	Tolerances
Compression resistance	/	kN/m^2	250	±5%
HDPE tensile strength	UNI 5819	N/50mm	400	±5%
HDPE Elongation at break	UNI 5819	%	25	±5%
Polyester geotextile tensile strength	UNI 5819	N/50mm	250	±5%
Polyester geotextile elongation at break	UNI 5819	%	50	±5%
Waterproofing values	/	L/m^2/sec	100	

ARDEX WPM 170

Water-based Aliphatic PU Membrane

One component

Solvent free

Low VOC

Easy application

Water vapour breathable

Permanent elasticity

Resistant to weathering and UV radiation

Suitable for vertical or horizontal applications

Internal or external use

Adaptable to any substrate geometry

ARDEX New Zealand Ltd
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Onehunga, Auckland 1061
Phone: 0800 227 339
info@ardexnz.com
www.ardex.co.nz

ARDEX WPM 170

Water-Based Aliphatic Polyurethane Membrane

DESCRIPTION

ARDEX WPM 170 is a water-based aliphatic polyurethane polymer dispersion which creates an elastic waterproof membrane.

ARDEX WPM 170 is resistant to weathering and colour change due to UV radiation, and is solvent free with low VOC. The membrane has permanent elasticity at any temperature, therefore accommodates normal building movement.

USES

- As a waterproofing membrane over Concrete substrates
- Renovating deteriorated waterproofing systems
- Waterproofing roofing tiles
- Temporary protection of PU foam
- Suitable on concrete decks with min. 1:60 fall
- Detailing in conjunction with other ARDEX systems.

SURFACE PREPARATION

Ensure that the substrate is hard, dry, solid and free of laitance, grease, dust or other loose particles such as paint, release agents, lime scale, mortar, plaster, adhesive residues, etc., which may impair adhesion.

Remove all traces of varnish, waxes, fats, oils and similar contaminants prior to mechanical preparation. Mechanically treat any concrete surfaces which are contaminated, using sanding or diamond tools, then vacuum.

Static joints and cracks <1mm can be filled with a putty made with a mix of ARDEX WPM 170 and fine, clean sand. Wider joints and cracks should be filled with a suitable ARDEX product. Allow to dry before applying a top coat. Properly treat and seal all joints or gaps in the concrete substrate where differential movement is expected (e.g. expansion joints).

PRIMING

Depending on substrate absorption, prime the substrate with a thin layer of ARDEX WPM 170 diluted with max. 50% water. On alkaline and non-porous substrates, use ARDEX WPM 400 PRIMER as a bonding layer.

APPLICATION

Stir before use. Pour ARDEX WPM 170 directly on the cured primed substrate and spread using a brush or wool roller until the film desired thickness is reached. It can also be applied by an airless sprayer.

Successive layers can be applied after former layers are no longer tacky.

It is strongly advised to bridge singular points by embedding ARDEX Deckweb into the first layer of ARDEX WPM 170. This same treatment on the whole surface will help ensure consistent coverage and improve resistance to wear and tear.

RENOVATION OF EXISTING MEMBRANES

ARDEX WPM 170 Can be used to coat over existing membranes to provide a new surface and enhance the life of the existing membrane.

An exact recommendation should be sought from ARDEX for the specific application.

LIMITATIONS

Do not use ARDEX WPM 170 where ambient and/or substrate temperatures are less than 5°C or less than 3°C above dew point. Do not use where ambient or substrate temperatures exceed 30ºC or where ambient humidity exceeds 85%. Do not cover the membrane. Avoid application in strong winds.

All ARDEX products are manufactured subject to rigorous quality controls and procedures; however, if strict colour consistency is required, it is recommended to use products from the same batch.

MAINTENANCE

No maintenance of the membrane is normally required provided significant substrate movement does not occur. In the event of damage to the membrane, the membrane must be repaired.Drainage outlets must be maintained to operate effectively. The product should be regularly checked for any signs of damage and abrasions.

Washing down yearly will help prolong the life of the membrane. Avoid allowing moss and lichen to grow on the surface. An additional coat should be applied every 5-7 years.

CLEAN UP

Clean tools and equipment immediately after use with water. Hardened product will need to be removed mechanically or using organic solvents.

Any spillage from any of the products must be removed immediately with sand, vermiculite or other inert material and collected in a suitable container for proper handling and treatment. Residues from spillage and empty containers must be dealt with in accordance with local regulations. See product safety sheet for further information.

STORAGE

ARDEX WPM 170 can be stored for up to 9 months in its original unopened packaging. The product should be stored in a dry place between 5°C and 30°C. Keep away from frost, direct sunlight and sources of heat.

COVERAGE

Approximately 2-3kg/m² (minimum two layers).

PACKAGING

ARDEX WPM 170 is available in 25kg in three colours.

Product Name	Colour
ARDEX WPM 170	White
ARDEX WPM 170	Grey
ARDEX WPM 170	Red

PRECAUTIONS

Harmful if inhaled, swallowed, and if comes into contact with eyes or skin. Safety goggles and gloves must be worn at all times during application. If in eyes, flush immediately with water and consult a doctor. If on skin, wash with soap and water (do not use solvents). If swallowed, do not induce vomiting. Seek immediate medical attention.

Additional information is in the Safety Data Sheet at www.ardex.co.nz

TECHNICAL DATA

Characteristics	Result
Density	1.25kg/L
Working time @ 20°C	Approx. 60 mins
Touch dry @ 20°C	5 hours
Recoat time @ 20°C	
Dry substrates	Min 6 hrs; max 24 hrs
Wet substrates	Min 12 hrs; max 24 hrs
Full cure @ 20°C	7 days
Elongation at break	200%
Tensile strength	2MPa
Bending at -5°C	No cracking
Resistance to rain @ 20°C	7 hours

Toll Free Technical Services:
1800 224 070 (Australia)
0800 227 339 (New Zealand)

ARDEX WPM 195

SBS Torch-Applied Tanking Membrane

Modified Bitumen Tanking Membrane

CE Certification

CodeMark Certification (No. CM70013)

Positive Vapour Barrier

High Resistance to Thermal Ageing

High Resistance to Cracking

Excellent Elongation and Flexibility

4mm Gauge

Sand Finish

CODEMARK™
CM70013

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www.ardex.co.nz

ARDEX WPM 195

SBS Torch-Applied Tanking Membrane

DESCRIPTION

ARDEX WPM 195 is a high performance Styrene-Butadine-Styrene (SBS) bituminous compound modified with adhesive elasto-plastomeric 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. CM70013)
- Excellent resistance to atmosphere agents
- Excellent resistance to geothermal gas
- 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 WPM 195 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.

ARDEX WPM 195

SBS Torch-Applied Tanking Membrane

TECHNICAL CHARACTERISTICS

Characteristic	Test Method	Units	Nominal Value	Tolerance
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 al 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

STORAGE

All rolls of ARDEX WPM 195 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

Toll Free Technical Services:
1800 224 070 (Australia)
0800 227 339 (New Zealand)

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PRODUCT CERTIFICATE

This is to certify that

Ardex WPM 195 & WPM 196 Tanking Membranes

Product description

Ardex WPM 195 & WPM 196 are high performance Styrene-Butadine-Styrene (sbs) bituminous compounds modified with adhesive elasto-plastomeric polymers. They are torch applied tanking membranes. WPM 196 has a slate mineral chip finish for high adhesion to concrete, WPM 195 does not have this finish

Product purpose or use

Ardex WPM 195 & WPM 196 are used as single or multi-layered membranes in horizontal or vertical applications for waterproofing for below ground tanking. They are primarily applied to the outside of a sub-structure of a building, such as a foundation or basement to resist hydrostatic water pressure and prevent water ingress. Other forms of tanking where these products 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 and living roofs.

Certificate holder

Ardex New Zealand Limited
15 Alfred Street, Onehunga, Auckland
Ph: 03 3736909
Website: www.ardex.co.nz

CodeMark Product Certification Body

Bureau Veritas Australia P/L
3/435 Williamstown Rd,
Port Melbourne VIC, 3207
Ph: 1800 855 190
www.bureauveritas.com.au

Complies with the New Zealand Building Code (NZBC):

If designed, used, installed and maintained in accordance with the scope of this certificate, the above mentioned product will meet the following provisions of the NZBC:

- B1.3.1; B1.3.3 (a), (d), (e)
- B2.3.1(a)
- E2.3.1 (contributes to); E2.3.2; E2.3.3
- F2.3.1

Subject to the following conditions and limitations

1. The membranes must be designed and installed in accordance with the ARDEX technical literature, ARDEX WPM 195, ARDEX WPM 196 available at www.ardex.co.nz.
2. The membranes must be installed by Ardex New Zealand Limited approved applicators
3. Ardex WPM 195 must be protected from UV
4. Ardex New Zealand Ltd will notify Bureau Veritas Pty Ltd in accordance with Regulation 15 of the Building (Product Certification) Regulations 2008

Sam Guindi
Product Certification Manager

For and on behalf of
Bureau Veritas Australia Pty Ltd

7 May 2019
Date of issue

CM70013
Certificate Number

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

ARDEX WPM 196

SBS Torch-Applied Tanking Membrane

Modified Bitumen Tanking Membrane

CE Certification

CodeMark Certification (No. CM70013)

Positive Vapour Barrier

High Resistance to Thermal Ageing

High Resistance to Cracking

Excellent Elongation and Flexibility

4mm Gauge

Mineral Chip Finish

CODEMARK™
CM70013

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www.ardexaustralia.com

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ARDEX WPM 196

SBS Torch-Applied Tanking Membrane

PRODUCT DESCRIPTION

ARDEX WPM 196 is a high performance Styrene-Butadine-Styrene (SBS) bituminous compound modified with adhesive elasto-plastomeric 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. CM70013)
- 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.

ARDEX WPM 196

SBS Torch-Applied Tanking Membrane

TECHNICAL CHARACTERISTICS

Characteristic	Test Method	Units	Nominal Value	Tolerance
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 al 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

PRECAUTIONS

When installing ensure mineral chip surface is facing inwards towards concrete pour.

Exercise caution when lifting, moving, transporting, storing or handling membrane rolls to avoid sources of punctures and possible physical damage.

Contact ARDEX Technical Services Department for specific recommendations regarding chemical or waste product compatibility with ARDEX WPM 196.

For further information, please consult the latest Safety Data Sheet.

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

Toll Free Technical Services:
1800 224 070 (Australia)
0800 227 339 (New Zealand)

ARDEX WPM 400 PRIMER

Water-Based Epoxy Primer for WPM 400

Multi-functional primer for ARDEX WPM 400

Good adhesion to many substrates

Suitable for use on damp substrates with up to 8% residual moisture

Solvent free

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ARDEX WPM 400 PRIMER

Water-Based Epoxy Primer for WPM 400

DESCRIPTION

ARDEX WPM 400 PRIMER is a multi-substrate, two-component water-based epoxy primer for application prior to application of ARDEX WPM 400 and ARDEX WPM 170.

SCOPE

Primer prior to application of ARDEX WPM 400 and ARDEX WPM 170 waterproofing range on non-porous substrates (ceramic, metal, ...).

Primer prior to application of ARDEX WPM 400 and ARDEX WPM 170 waterproofing range on porous substrates (concrete, asphalt, ...).

SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminants. Mechanically clean the floor using recommended preparation methods such as shot-blasting, scarifying, diamond grinding, shaving or other suitable methods. After these works, proceed to aspirate. Always ensure substrate moisture content is less than 8%.

Repair works and filling holes and cracks should be undertaken with the suitable ARDEX product. Any joint or crack the concrete substrate where differential movement is expected (i.e. expansion joints), should be sealed. When applied on metal surfaces sandblasting for cleaning should be used. After sandblasting the surface must be cleaned using a proper solvent. Ensure solvent is dried completely before applying ARDEX WPM 400 PRIMER.

MIXING

The individual components of ARDEX WPM 400 PRIMER should be shaken before mixing. Add the curing agent (component B) to the resin (component A) and stir with mixing paddle at low speed until a uniform consistency is reached. Ensure the resin components are thoroughly mixed (ideally mixed for at least 3 minutes).

Part of the mixture can be reintroduced into the hardener container to gather remaining residues in the container. The mixture which has been reintroduced into the hardener container can be returned to the mixing container and stirred for a further 30 seconds. This mixing process ensures the product's consistency and that any residual resin remaining in the containers reacts.

After the two components have been mixed, use immediately. 1kg of ARDEX WPM 400 PRIMER will remain workable for 60 mins between 18°C and 20°C.

APPLICATION

Once mixed, ARDEX WPM 400 PRIMER should be spread across the floor immediately using a brush or short/medium nap roller.

One or more layers of ARDEX WPM 400 PRIMER may be needed to ensure a uniform, pore-free surface and to compensate for differences in absorbtion of the various areas of the substrate. The second coat should be applied as soon as the first is cured sufficiently.

When a thinner consistency is required, dilute with clean water to a maximum of 30% for the first coat only.

The curing time varies depending on ambient temperature and the surface (at least 6 hours). Ensure the primed area is well ventilated. On irregular substrates ARDEX WPM 400 PRIMER can be mixed with quartz sand (0.1-0.3 mm) in a 1:0.3 ratio, then applied by trowel to achieve a layer of regularisation. One or two layers of regularisation may be needed.

LIMITATIONS

Always use ARDEX WPM 400 PRIMER with ambient and/or substrate temperatures over +5°C and provided with a minimum of +3°C above dew point. Do not apply at temperatures above + 30°C. Do not apply with air humidity above 85%. ARDEX WPM 400 PRIMER can be applied on substrates with up to 8% residual moisture. On surfaces with higher residual moisture, consult the ARDEX Technical Department. If the pot life is exceeded the mixed product loses its characteristics and should be discarded.

CLEAN UP

Clean tools and equipment immediately after use with water. Hardened product will need to be removed mechanically.

Any spillage from any of the products must be removed immediately with sand, vermiculite or other inert material and collected in a suitable container for proper handling and treatment. Residues from spillage and empty containers must be dealt with in accordance with local regulations.

STORAGE

ARDEX WPM 400 PRIMER can be stored for up to 12 months in its original unopened packaging. The product should be stored in a dry place between 5°C and 25°C. Store protected from frost, direct sunlight, and heat sources.

COVERAGE

Approximately 100-300g/m² per coat depending on substrate porosity.

PACKAGING

ARDEX WPM 400 PRIMER consists of two components and is available in 20kg kits.

TECHNICAL DATA

Characteristics	Result
Density	Approx. 1kg/L
Working time @ 20°C	Approx. 60 minutes
Touch dry @ 20°C	5-6 hours
Recoat time	
Dry substrates @ 20°C	Min. 6 hours
Wet substrates @ 20°C	Max. 24 hours
Full cure @ 20°C	7 days
Working temperature	3 - 35°C

PRECAUTIONS

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

Wear protective gloves, protective clothing, eye and face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately get medical attention or call the national poisons centre. If skin irritation occurs, get medical attention. Dispose of contents/container to hazardous or special waste collection point, in accordance with local regulation. May produce an allergic reaction.

Additional information is in the Safety Data Sheet at www.ardex.co.nz

Toll Free Technical Services:
1800 224 070 (Australia)
0800 227 339 (New Zealand)

ARDEX WATERSTOP WPM 1955

Polymeric Hydrophilic Swellable Rubber Joints

Specifically designed for fresh and marine environments

Non-greasy, non-sticky, odourless and non-toxic

Excellent for applications to rough concrete surfaces

No premature expansion; allows concrete to gain strength before expansion

Easy to install by bonding, nailing or casting into joint faces

Solves detailing problems in construction

Excellent performance - Swelling properties unaffected by long term cyclic wetting and drying

Maintains effective seal in wet conditions

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ARDEX WATERSTOP WPM 1955

Polymeric Hydrophilic Swellable Rubber Joints

PRODUCT DESCRIPTION

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

USED IN APPLICATIONS IN FRESH, BRACKISH AND MARINE WATER

In its maximum expansion, in all its sections, ARDEX WPM 1955 is mechanically strong and elastic. The swelling process is controlled and designed to be compatible with fresh concrete. The first expansion occurs after 6-12 hours, while the second expansion occurs after 24-36 hours.

COMPOSITION

ARDEX WPM 1955 is designed of rubber and aggregated polypropylene with high cohesion polymeric binders. These hydrophilic components activate in wet conditions which allows ARDEX WPM 1955 to increase in volume.

APPLICATION INSTRUCTIONS

ARDEX WPM 1955 must be applied to the support by nailing or casting into joint faces with the aid of ARDEX CA 20 P, ARDEX RA 88 and ARDEX RA 84 to remain attached in the early stages of concrete casting. For maximum performance ARDEX WPM 1955 should be placed between the reinforcing bars or in a support with raised edge of at least 8-10cm. The joints are designed by matching sideways the rubber strip for at least 5cm, while avoiding overlapping.

The application surface should be clean, compact, properly vibrated and free of any irregularities.

BENEFITS

ARDEX WPM 1955 is non-greasy, non-sticky, odourless and non-toxic. Once ARDEX WPM 1955 is secured into place, no additional bonding is required and it will maintain its seal in vertical laying as well as wet conditions.

PACKAGING

ARDEX WPM 1955 is packed in cartons with 6 rolls of 8m long coils giving a total of 48 linear meters per carton.

ARDEX Australia Pty Ltd
1300 788 780

Toll Free Technical Services:
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ARDEX New Zealand Ltd
0800 227 339

June 2020

DIMENSIONS:

20mm x 10mm x 8m roll

6 rolls per carton; 48 linear metres per box.

TECHNICAL DATA

Specific weight	ISO 1183	1.27kg/dm^3
Operating temperature	ISO 458/2	>+3ºC
Max. expansion		200%
Hardness	ISO 868	45 shore A
Load at break	ISO 527	30 MPa
Elongation at break	ISO 527	500%
Durability		unlimited
Hydrostatic pressure resistance		12 bar
Colour		Blue

PRECAUTIONS:

ARDEX WPM 1955 should have concrete cast as soon as pratically possible. Should premature expansion occur, contact ARDEX for further information.

DISCLAIMER