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General

Kordon termite management system, which incorporates an NRA approved termiticide, can be considered a chemical AND physical barrier. Kordon offers long-term termite protection to new buildings, and also acts as a moisture vapour barrier when applied as a full-underslab treatment.

How it works

Kordon contains the chemical deltamethrin, a synthetic pyrethroid with the capacity to kill and

repel termites. This chemical is impregnated onto a fibrous webbing in a controlled factory environment. The treated webbing is then laminated top and bottom to plastic. The top orange plastic layer is thicker (200 microns) and provides the moisture vapour barrier. The bottom black plastic layer is protective.

Kordon provides long - term termite protection. Installers, home owners and the environment are also protected by this unique termite management system.

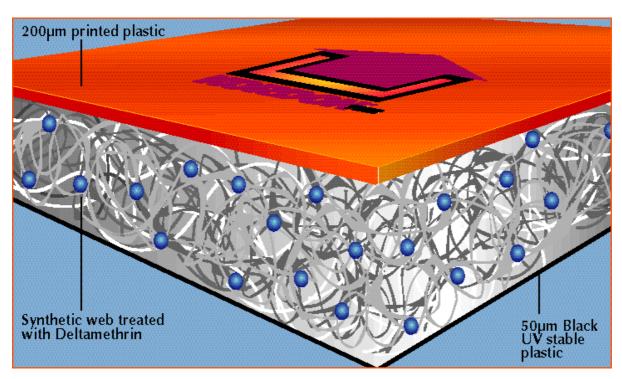
Kordon has approval for use in council areas where the use of soil termiticide treatments have been prohibited.

Chemical Protection:

Repellency

Kordon is highly repellent to termites.

Termites which come into contact with an area treated with Kordon will turn away before they even reach the barrier. If they persist, Kordon will kill termites should they attempt to pass through the barrier.



Compliance

Kordon TMB and Kordon Termite Barrier are Alternative Solutions under the Building Code of Australia, with the Assessment Method being that evidence is available that the use of Kordon TMB or Kordon Termite Barrier meets a Performance Requirement or a Deemed-to-Satisfy Provision.

Evidence of Suitability comprises reports from a Registered Testing Authority, i.e. CSIRO, and other documentary evidence. The relevant BCA Deemed-to-Satisfy Provisions are acceptable Construction Manuals AS 3660.1 Protection of buildings from subterranean termites - New buildings and AS 2870 Residential slabs and footings code.

Reference	Requirement	Evidence of Suitability
AS 3660.1: C1 2.3.4	Termite resistant chemical barrier.	ABSAC Technical Opinion 216: Kordon TMB satisfies the requirements of the BCA for protection from termites.
AS 3660.1: C1 2.3.4	Chemical barrier consists of a product registered by the NRA for that purpose.	NRA Approval 48772/01: Kordon MC for application in production of Kordon TMB to protect buildings under construction from subterranean termite attack.
AS3660.1: C1 2.2.1	Barrier system deters concealed entry	ABSAC Technical Opinion 216 and CSIRO Appraisal 255: Installation instructions as provided by the manufacturer.
AS 2870: C1 5.3.3	Provision of a vapour barrier or a damp-proofing membrane.	ABSAC Technical Opinion 216: Kordon TMB satisfies the requirements of the BCA for damp proofing of floors on ground
BCA vol 2, Qld variation P2.1.1	Termite barrier to be durable	ABSAC Technical Opinion 216 and CSIRO Appraisals Technical Assessment 255, on Durability: "These tests enable (Bayer) to claim effectiveness approaching the highly effective but environmentally unacceptable organochlorines"; "results have been extrapolated for long time efficacy up to 45 years".

Advantages of Kordon

Consistency

Each square metre of Kordon contains a consistent rate of 1 gram of deltamethrin. Kordon is manufactured to strict quality guidelines and it is not possible to undertreat using Kordon.

Installation:

Accredited Installers

Kordon should be installed by accredited installers who have been trained and are licensed. Correct installation, in accordance with the manufacturers instructions is a condition of the 10-year product warranty.

Flexible

Kordon is flexible and can be installed in many difficult and complicated situations

such as multiple penetrations or step downs. Kordon can be moulded around unusual shapes and can quickly be cut and joined. The average perimeter installation only takes a few hours and becomes an integral part of the building process.

Tough:

Kordon is a robust product. It takes a sharp knife to cut Kordon, a blunt object has little chance of penetrating the product. If a hole is made accidentally, this can be easily repaired by cutting a patch and taping the area.

Long Term:

10 Year Warranty

When correctly installed Kordon provides a long term 10-year warranty.

Based on current on-going research, trial results indicate Kordon is capable of providing termite protection for the economic life of the building.

Support:

Australian Made

Kordon was designed in Australia to suit Australian conditions. It is an Australian made product.

Technical Support

Kordon is supported technically by a team of professionals working in the pest control industry. Kordon is made by Bayer, one of the world's largest research and development life science companies.

Preferred:

Architects and Building Designers

Recent market research has found Kordon to be the preferred method of termite protection specified by architects and building designers.

Sensitive Building Sites

Kordon can and has been used on many sensitive building sites. For example, world heritage listed areas on Fraser Island, hospitals, schools and childcare centres where many other termite barrier systems could not have been installed due to environmental and health related considerations.

Concealed Access

The overall objective of the Kordon management system is to keep the termites out. The key to termite protection are the words "concealed access". The objective of Kordon is to prevent concealed access from subterranean termites. They can still crawl around the barrier, but if they do, they will leave a visual trail (mud tunnelling), and regular inspections will identify this.

Options

There are two Kordon products available:



1) Kordon TMB

Kordon Termite Moisture Barrier (TMB) is a complete underslab treatment providing both termite and moisture protection. Kordon TMB is installed on top of the bedding sand before the steel reinforcing mesh is laid. All pipes and penetrations are individually protected by Kordon as part of this treatment. The concrete is then poured on top of Kordon TMB.

When installed as a complete under slab barrier, Kordon TMB is by far the most comprehensive termite treatment available. Kordon TMB should be used whenever possible. The physical presence of Kordon TMB over the site provides repellency to termites for the entire area. Because of this repellency, the termites are unlikely to stay in the area, reducing significantly the potential for termite problems. Kordon TMB is an excellent choice for areas of high termite risk.

Overlap Adjoining Sheets as Required in AS2870

Kordon TMB must be overlapped by 200 mm and taped with quality duct tape. This tape holds the Kordon in place until the concrete is poured on top.

Kordon TMB - Termite Moisture Barrier

Many people question the joints and ask "why don't the termites come through the joints?". Kordon TMB is repellent to termites and the overlapped joints have 2 layers of the repellent Kordon which provides extra protection. Extensive studies have proven that the termites do not penetrate through these areas.

Internal Beams

Many slabs are designed with internal structural beams as part of the concrete footing. When Kordon TMB is laid through these beams more product is required than the original site "footprint".

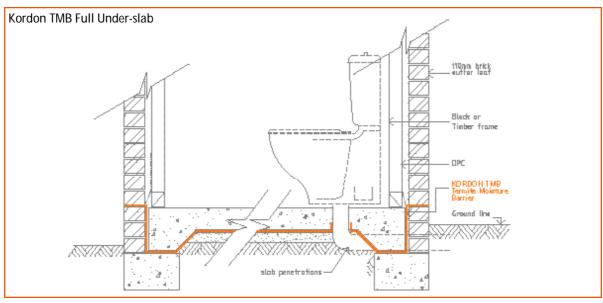


Kordon TMB Full Under-slab showing flexibility with stepdowns

Where these beams are deeper than 150 mm, there is no need to lay the Kordon TMB through the beam. These thickened beams of concrete have extra reinforcing and are considered suitable as a termite barrier in their own right, but must be protected against moisture with the usual moisture membrane. This applies to both internal and external structural beams. If Kordon TMB is not laid through a beam, it must be lapped down 150 mm into the beam on either side and taped to the moisture membrane.



Kordon TMB Full Under-slab



The detail above is an in-fill slab construction. There are many variations of slab edge details & slabs which have varying details for internal strengthening beams. Some footings require starter bars which get tied into the mesh. Refer to the manufacturers installation manual for detailed instructions.



Which Kordon Product?

Price is often the only parameter used to decide which product to use, but this may not be the best option. Installers, specifiers and builders all have a duty of care to offer the client both Kordon options.

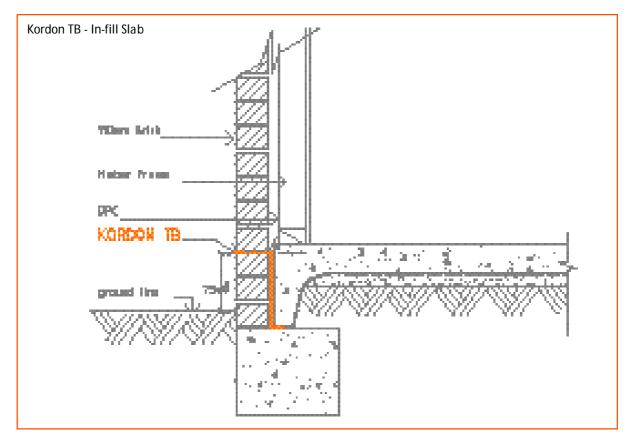
2) Kordon TB

Kordon Termite Barrier (TB) is a flexible termite protection system which can be used as part of a complete termite barrier. The Kordon TB warranty covers termites coming through where the product has been installed. Kordon TB can be used in conjunction with the slab to form a complete termite barrier system, provided the slab has been poured and cured appropriately.

Kordon Termite Barrier offers protection against termites, through the areas of the building where there is the greatest risk of concealed termite access (ie: wall cavities and pipe penetrations).

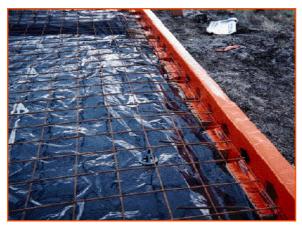
Remember Kordon Termite Barrier is only part of a termite management system for a new property. To comply with the building regulations, the slab must be poured to the concrete standard AS2870. The slab then becomes part of the termite barrier and the Kordon Termite Barrier protects the high risk areas.

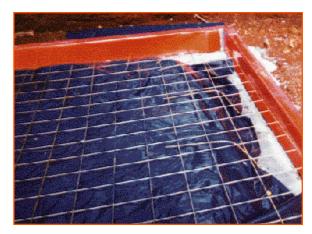
The Flexibility of Kordon TB - Termite Barrier



Perimeter Detail In-fill Slab

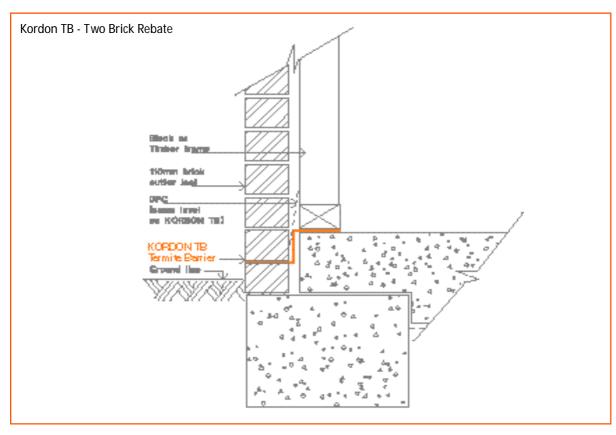
The Kordon Termite Barrier comprises strips with a minimum width of 300mm. The product is installed to the outer edge of the brickwork & held in place with 25-30mm clouts, the remainder of the product is secured to the internal brickwork towards the footings. The slab pour will ensure the product is held in place. The treated blanket will repel possible termite ingress. The DPC is installed above the Kordon level.





Kordon TB - In-fill slab

Kordon TB - Termite Barrier Slab Edge Rebate



Slab Edge Rebate Detail

<u>Two Brick Rebate:</u> The perimeter strip of Kordon Termite Barrier is secured to the top of the slab after the concrete is cured. The builder will chalk line the positioning of the timber frame or brick/block work and the product is secured to the slab with clouts or concrete nails. A course of bricks is laid to the footing and the Kordon is installed at this level. If there is any delay with this course being laid, the product is pinned to the timber frame.

<u>One Brick Rebate:</u> The excess Kordon is installed into the cavity. If the finished brickwork is face brick, the product is set back inside the external brick line.

With all Kordon installations, consideration is given to the height of the "proposed" slab or brick exposure from soil to weep hole level. If doubt exists as to the future possibility of the installation being covered by landscaping etc., Kordon should be installed prior to the laying of concrete mowing strips and pavements.



Kordon TB - Double Brick Cavity



Kordon TB - Waffle Pod

Corner Details for Kordon TB - Termite Barrier

Corners and joins

When joining Kordon Termite Barrier, a 50 mm overlap is required. This applies to joins along a wall, at a corner or where a patch has been added.

How to install Kordon at corners

Corners require special attention and the detail

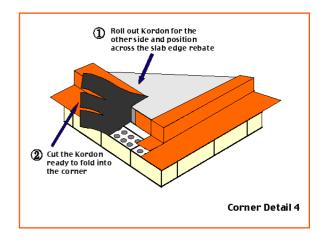
Roll the Kordon Termite
Barrier across the slab
edge rebate and onto the
main slab area

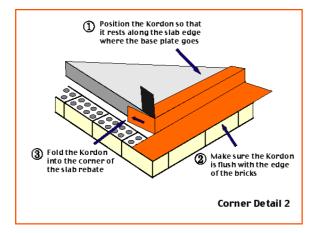
Make two cuts from
the edge of the Kordon
to the corner of the slab

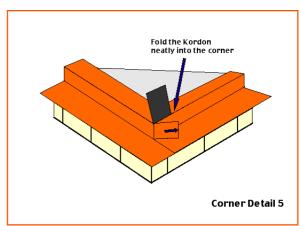
Corner Detail 1

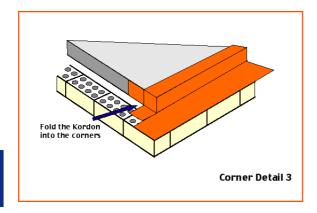
for corners must be followed. In some instances, slab edge rebates require one course of bricks to be laid prior to perimeter installation.

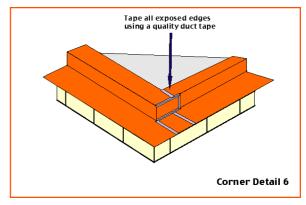
Note: For infill slabs the reverse procedure applies.







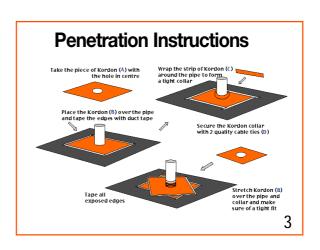


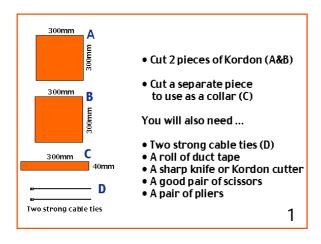


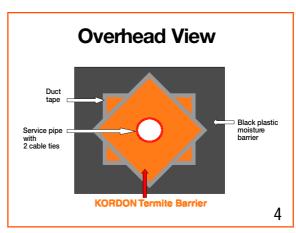
How to install Kordon at penetrations

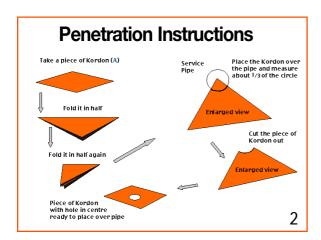
Penetrations through the slab such as water pipes, sewerage pipes, gas lines, cable TV... any penetration, has to be treated separately with Kordon. When installing Kordon as a **whole of slab** application, each penetration requires one separate patch, 300mm x 300mm.

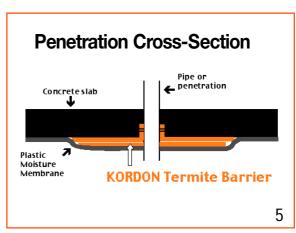
Perimeter and service penetration installations only, require <u>2 patches</u> of Kordon <u>minimum 300mm x 300mm</u>. In all penetrations a 40 mm wide collar of Kordon is secured with both duct tape and strong cable ties. See following diagrams, which refer to Kordon TB - perimeter use.











Horizontal Penetrations

A horizontal penetration is an intrusion at right angles to the underslab area. This situation is most commonly encountered where a penetration passes through an edge beam or internal structural beam.

Sometimes hidden access can occur giving termites permanent access to the building through hollow building materials that hold the service penetrations (eg copper or PVC pipe). Kordon should not be installed around penetrations until all these hollow supporting structures have been replaced or removed.



Horizontal penetration

Multiple Penetrations

The term multiple penetrations refers to a cluster of two or more penetrations which are in close proximity. Multiple penetrations often consist of more than one size of pipe or conduit providing access for a range of services.

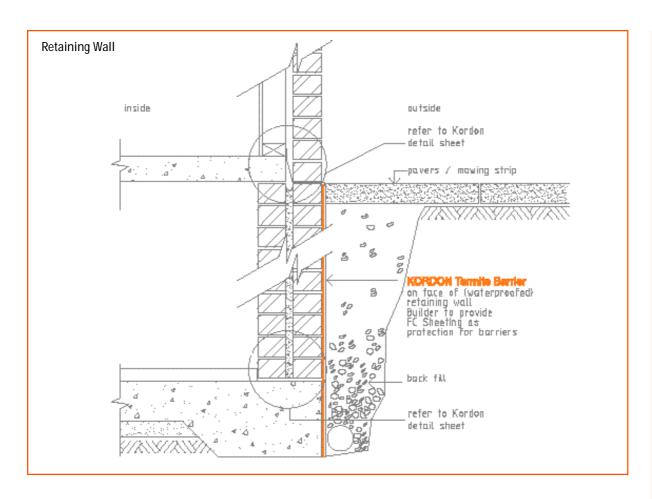
Kordon Termite Barrier has the flexibility to accommodate multiple penetrations in close proximity. Treat each penetration separately. Ensure a minimum of 100mm of Kordon extends from each penetration. Ensure each penetration is protected by a double layer of Kordon TB plus a collar.



Multiple Penetration - Kordon TMB - full underslab

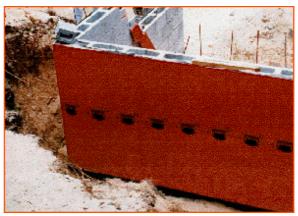


Multiple Penetration Kordon TB



Retaining Wall Detail

Where the retaining wall is an integral part of the construction Kordon can be installed as a termite barrier. Kordon TMB does not negate the necessity for installation of conventional tanking/water proofing materials. Kordon should be installed down to the level of the rubble material or under such materials. Kordon must be secured to the external concrete/brickwork either by a concrete mowing strip or concrete pathway.



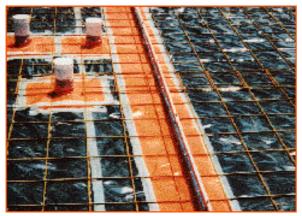
Kordon Termite Barrier Retaining wall installation in progress

Construction Joint

Kordon can be used to protect all construction joints such as the traditional construction joint, key joints, dowel joints, saw cuts etc. A minimum 300mm wide strip of Kordon is installed under the joint and taped to the plastic moisture membrane with a quality duct tape.

Existing Concrete / New Concrete Joints

All areas where concrete slabs join are potential termite entry points. Kordon should be installed to protect these joints.



Kordon Termite Barrier - Key Joint

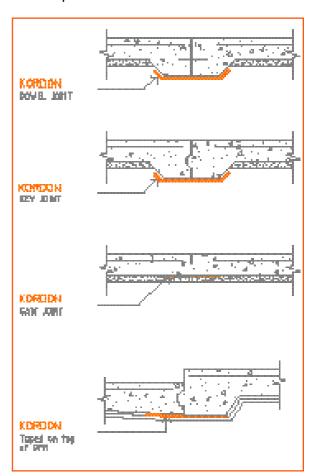


Kordon Termite Barrier - Concrete to Concrete

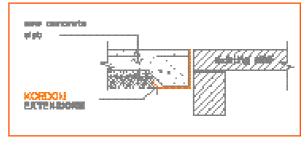
Access Ramps

Kordon should be installed to the vertical face of the concrete slab prior to the pouring of the access ramps.

A minimum 300mm strip of Kordon is secured to the height of the slab and extends down toward the footing and then horizontally under the ramp.



Kordon Termite Barrier Key Joint



Kordon Accreditation

Kordon should be installed by an accredited Kordon Installer. Kordon installers have been trained by the manufacturer (Bayer Environmental Science) to ensure that installation is precise and done correctly.

Kordon accreditation must be current. Each installer is individually certified and issued with a numbered certificate. These certificates are renewed annually. Only trained installers with current certificates can install Kordon.

For more information about accreditation or for a list of current installers please contact the website or our 1800 Hotline.

KORDON HOTLINES:

1800 648 827 - Queensland enquiries

1800 634 913 - All other states

Existing Buildings

Kordon is a termite management system for new buildings and extensions to existing structures. Kordon is not designed as a remedial treatment for existing termite damage.

Pre-Installation

Prior to installing Kordon, it is recommended that a site inspection be carried out. To reduce the risk of termite damage, any active termite nests within 50 metres of the property should be eliminated prior to construction. Any timber including exposed tree roots, timber offcuts etc should be removed from the treatment area. All structural material below the ground should be made from termite resistant material such as masonry, concrete, steel etc.

Orange Side Up

Kordon is always installed orange side up. The top orange membrane is 200 micron thick plastic, and when Kordon TMB is installed, it serves as the moisture/vapour barrier or damp proofing membrane.

Occupational Safety

Kordon termite management systems are not classified as hazardous according to the criteria of Worksafe Australia.

The product contains 1g of deltamethrin termiticide per m², which is impregnated within the inner matrix of the product. Some individuals may experience a stinging or tingling sensation similar to sunburn. The effect is short term. Not all individuals are susceptible.

To avoid exposure, installers should wear industrial quality gloves when working with this product.

For more information consult the Kordon Product Safety Sheet available from Bayer Environmental Science or from our website.

Allergy Free

When installed, Kordon poses no risk to the home owner, construction workers or the environment. University tests have found Kordon to be suitable for use in "Allergy Free" housing in Australia.

Offcuts

When installing Kordon, there will always be small off-cuts. Where ever possible these are used for patches, repairs, collars etc. If the pieces are too small, they can be discarded by placing under the slab (before pouring). If this is not possible, Kordon offcuts should be placed in a plastic bag, sealed, and disposed of via an approved industrial waste disposal site.

Warranty

10-year warranty - Kordon provides long-term protection against termite penetration of the Kordon barrier.

Annual Inspections

All termite barriers require at least an annual inspection by a licensed / accredited timber pest inspector. These inspections are an integral part of the Kordon warranty and must be completed for the Kordon warranty to remain valid.

It is the duty of the accredited installer to ensure the customer is aware of these warranty requirements and conditions.

If the accredited installer does not have the timber pest accreditation, he/she shall refer the homeowner to a professional pest control company that has such qualifications.

Bayer Environmental Science



Warranty

- This Warranty covers damage by Subterranean Termites
- ("Termites") only.

 Bayer warrants that Kordon shall restrict the entry of Termites
- into the Building through the Kordon barrier for a period of ten (10) years from the date of installation ["Warranty Period"]. This Warranty covers damage by Termites to structural timbers and internal timbers BUT DOES NOT INCLUDE damage by

(a) chattels of any nature whatsoever including (but without (a) charles of any nature whatsoever incoming jour will limiting the foregoing) antiques, heirlooms, paintings, artwork and paintings; and (b) any pergolas, wiring, extensions to the Building and

- If Termite infestation of the Building occurs as a result of the failure of the Kordon and damage by Termites is caused to structural timbers and/or internal timbers fixtures and fittings during the Warranty Period, Bayer will without charge to the
 - (a) repair the Kordon barrier where practicable; and/or (b) cause the repair or replacement of structural timbers and/or internal timbers so damaged.
- . To the extent permitted by the Law of the State or Territory in
- which the premises are located:

 (a) the liability of **Bayer** under this Warranty is limited to a maximum of \$100,000.00 in respect of any one (1) warranty claim.
 - (b) All representations and other warranties express or implied and whether arising by virtue of Statute or otherwise are excluded or limited as stated in this Warranty.
- This Warranty shall only have effect if the Kordon is installed by an Accredited Bayer Installer)

- The Owner's the Building during the Warranty Period ("Owner"), at the Owner's expense, arrange for thorough and regular inspection of the Building for the presence of Termites at intervals not exceeding 12 months by an accredited/licenced Timber Pest
- Inspector.
 Where the Termite risk is high or the Building type is susceptible to Termite attack (e.g. North of the 26th parallel) more frequent nspections (3-6 months) must be undertaken
- If Termites are detected or are found to have breached the Kordon barrier, the Owner must, within 7 days of such detection, notify

This Warranty shall be void and have no effect in any of the following circumstances:

- The Kordon barrier is damaged, modified, bridged or otherwise interfered with by any person or any act, fact, matter or thing beyond the reasonable control of Bayer.

 The Building is structurally modified, altered or otherwise
- changed in any way which would or may diminish the
- effectiveness of the Kordon as a Termite barrier.

 If at any time during the Warranty Period, the Owner

 (a) allows or fails to prevent accumulation of:
 - (i) wood, rubbish or timber against the Building; AND (ii) finished ground level around the Building to a height which does not comply with the terms of the Installation Manual.

(b) allows the barrier dividing the soil surface and the or broken by any other material or matter through which Termites may by-pass the Kordon to be bridged or broken by any other material or matter through which Termites may by-pass the Kordon and infest the Building.

The Owner shall fail to carry out any of the Owner's

- responsibilities
- Termites shall enter the Building through any manner other than

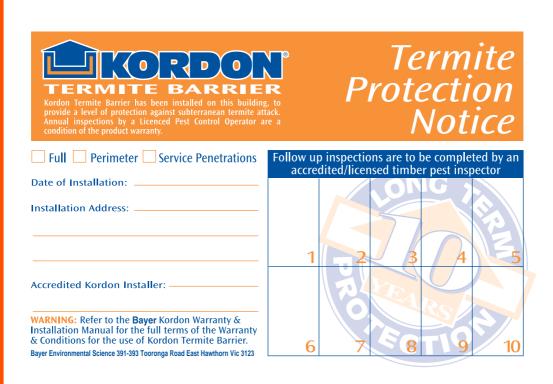
DATE OF INSTALLATION: Bayer ACCREDITED INSTALLER: CONTACT NUMBER: ACCREDITATION No:

Bayer Environmental Science 391-393 Tooronga Road East Hawthorn Vic 3123

Kordon - Termite Protection Notices

Meter Box Sticker

In response to changes in regulations in some States, it is advised to always place Kordon termite protection notices BOTH inside the meter box AND inside a kitchen cupboard after each Kordon installation. This sticker records the date and details of the initial Kordon installation, and provides space for the timber pest inspector to record the date of each subsequent inspection.



Certificate of Compliance

Certificate of Compliance

These certificates record the Kordon installation details including the date of installation, site address, builder, accredited installer, etc. Some councils require the certificates to be lodged with them when the Kordon installation is complete. Other councils have withdrawn this requirement.

It is recommended that a certificate of compliance be filled out for every Kordon installation as a detailed record of the job. If the council doesn't require it, a copy will be kept anyway by the accredited installer, and a copy will be given to the customer.

Many accredited Kordon installers record every installation on a digital camera and keep this on file with the documents.

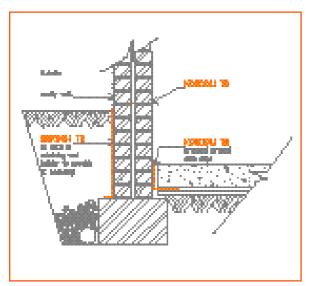


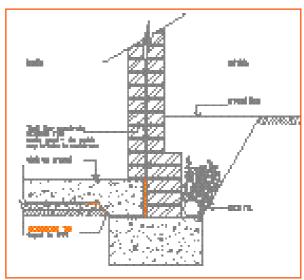
Site Installation Report

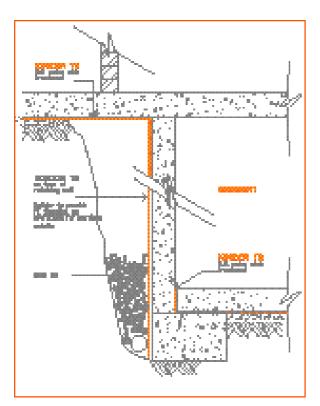
This document is attached to the Kordon warranty document. Basically the site installation report is a graph paper page with all the details of the installation recorded as a drawing.

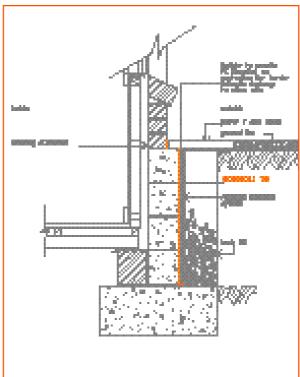
The site installation report can be used for providing details for quotations and / or for maintaining accurate records of where Kordon has been installed.

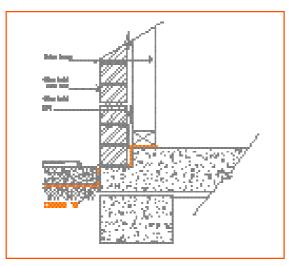






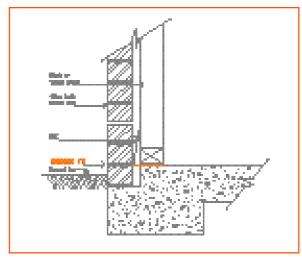






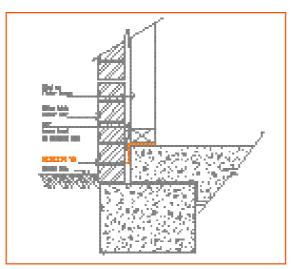
ONE BRICK REBATE

Detail shows Kordon installation to slab edge rebate e.g. Waffle pod slabs. If you consider the Kordon installation will be compromised by either soil build up to weephole level or by rendering of brickwork, it is advisable to recommend this pavement / mowing strip installation.



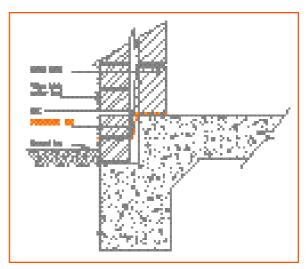
ONE BRICK REBATE

Install 350mm Kordon strip to slab on chalk lines as indicated by the builder. Once the bricklayer has installed a row of bricks to external rebate place Kordon as shown and extend to outer brick. If mortar is to be pointed install 3-5mm inside that level. If there is a time lapse between installing the Kordon under the timber frame work to when the row of bricks are laid, temporarily secure the Kordon back to the frame work to protect it until the bricks are laid. The excess Kordon is to be installed into the cavity.



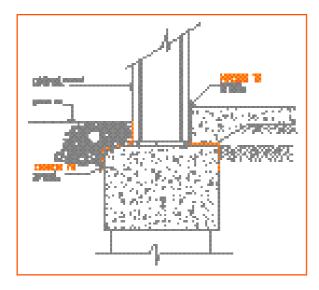
TWO BRICK REBATE

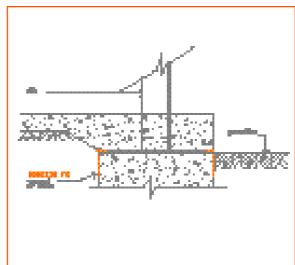
Install 350mm Kordon to top of slab. The builder will usually chalk line the position of the timber frame or internal brick/block. Secure the Kordon to the slab with small ramset nails with washer. Kordon is to extend to slab edge and left flush with first brick. Secure Kordon once again with nails to horizontal slab edge. It is more important to install Kordon to outer edge than to the chalk line. DPC is installed just above Kordon level, at the weephole.

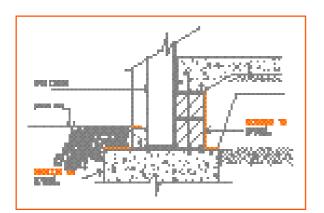


TWO BRICK REBATE

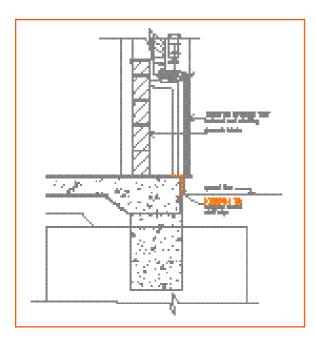
Install 350mm Kordon to top of slab using ramset nails with washer. The builder will indicate positioning of timber frame or internal brickwork by chalking. The two brick rebate indicates the actual height of the rebate. After bricklayer lays first course of bricks install Kordon at this level. Kordon is to extend to be flush with outer brick. Excess Kordon is left in cavity in instance where external walls are face brick and mortar is pointed Kordon is installed 3 -5mm off edge of brick.

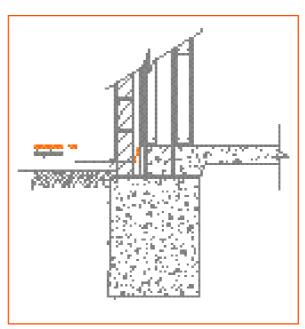


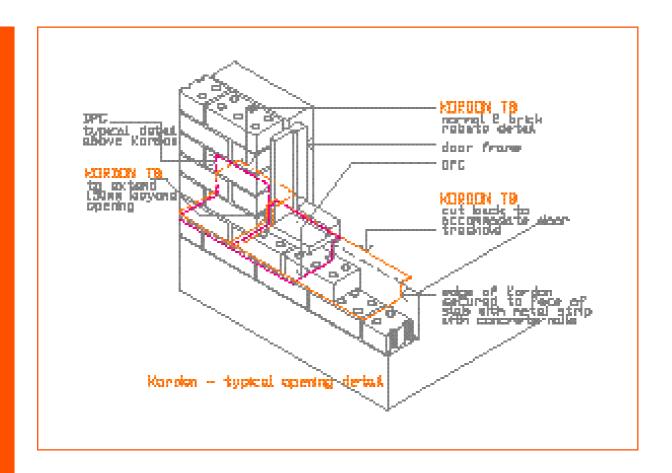


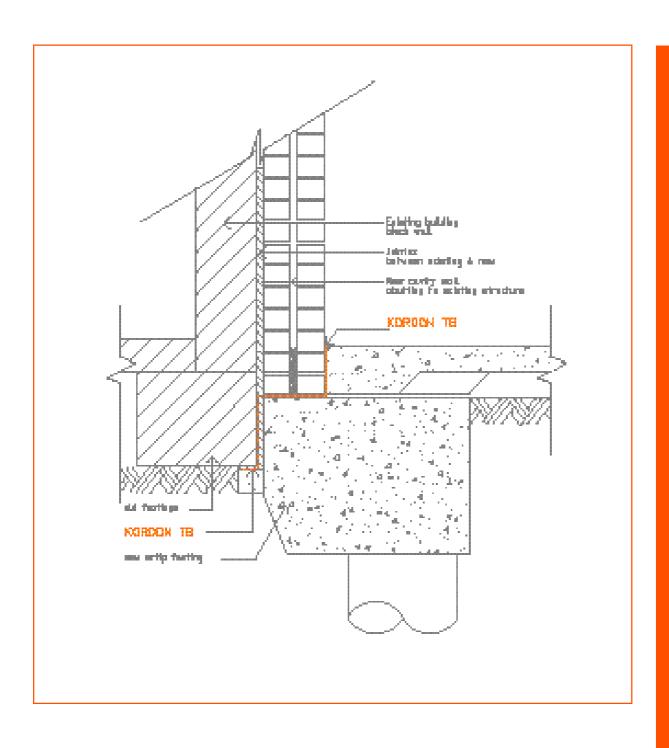


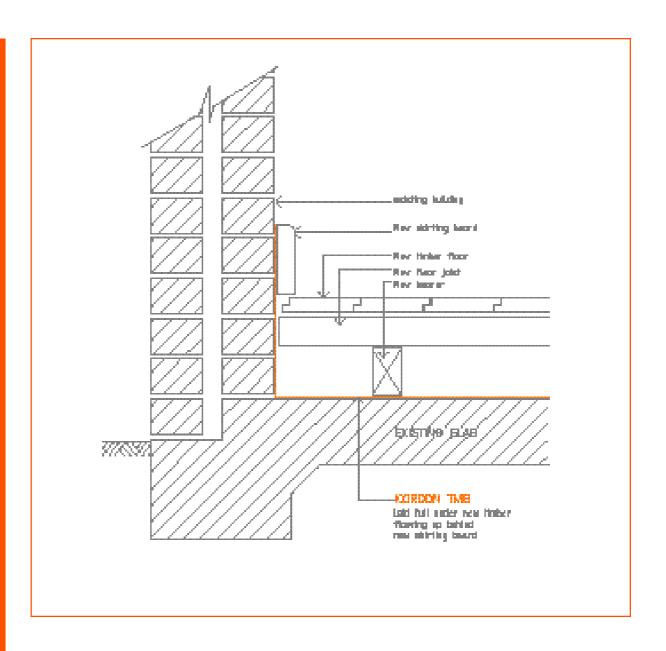














Kordon: Absolute Peace of Mind.

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- Correct application every time.
- · Long term termite protection.
- Accredited Installers.
- Meets performance criteria of AS3660.1-2000.
- Complies with the Building Code of Australia.
- 10-year, \$100,000 structural damage warranty.
- Repels termites without soil contamination.
- Environmentally friendly.
- Designed and manufactured in Australia.

Authorised Installer :		