



ARDEX X 23 SYSTEM

Relay™ Floor Adhesive System

Removable floor tiling system – remove tiles
without damaging substrate

Ideal for leased or heritage applications

Unique floating system – isolates base movement
with minimal build height

Fast setting – grout after 4 hours

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ARDEX X 23 SYSTEM

Relay™ Floor Adhesive System

DESCRIPTION

The ARDEX X 23 System is a unique tiling solution for leased domestic and highly trafficked commercial floors which have the dual requirements of a hard wearing tile surface and a cost effective reinstatement of the concrete floor at the end of the lease period.

The system comprises of a customised mat, and a high performance two part adhesive. Together they enable tiles to be fixed in large areas without the mat being adhered to the substrate and provide at least 5 years of medium load performance. Since the mat is not adhered, the tiles fixed with ARDEX X 23 can be removed without damaging the substrate.

ARDEX X 23 can be used in internal, dry areas. It is suitable for use with underfloor heating, and commercial kitchens/ food preparation areas.

ARDEX X 23 System is capable of withstanding hand pallet loads with a maximum gross weight of 350kg. For fixed loads the maximum capacity should not exceed 15kg/sq.cm.

FOR FIXING (TILE TYPES)

- Ceramic tiles, fully vitrified, porcelain or agglomerate stone (bound by polyester or epoxy resin) - provided these are not exposed to service temperatures above 45°C or below 5°C.
- Porous tiles such natural stone, terrazzo, cement tiles and untreated terracotta - provided these are not exposed to service temperatures above 30°C.

Not recommended for fixing moisture sensitive stone tiles.

To (substrates)

- Designed for use over internal concrete and timber floors in dry areas (level and flat, see substrate preparation).

SUBSTRATE PREPARATION

The substrate must be dry and free from all grease, oil, dirt, loose materials and other surface contaminants which reduce surface friction (e.g. coatings).

The surface should be true to plane. If the variation in surface flatness is greater than 1mm in 1metre, then the concrete slab should be leveled with ARDEX LQ92. Before applying ARDEX LQ92 to the concrete surface, the floors should be primed with ARDEX Multiprime.

Any raised edges (due to adjoining concrete slabs or fractures in existing slabs), residual contaminants that create raised hardpoints (e.g. concrete or plaster spatter), surface spalls and holes should be remediated prior to laying the mat. Where either high points or linear changes in height are greater than 2.0mm then the surface should be remediated by either mechanical surface preparation such as grinding or the application of ARDEX LQ92.

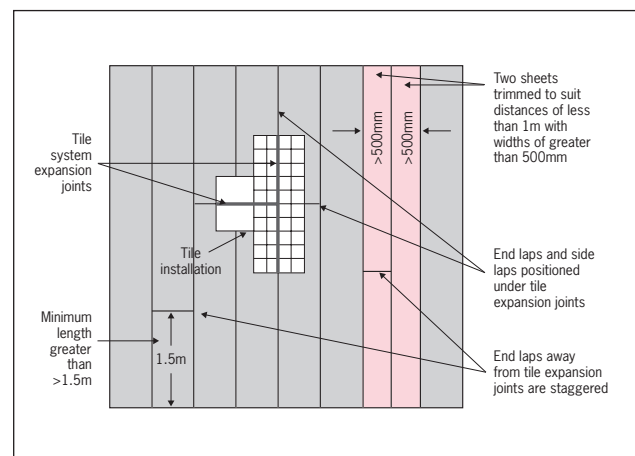
APPLICATION OF THE MAT

Placement of mat and tiles

When placing the mats ensure the joins in the mats are not positioned over subfloor expansion/contraction joints or cracks that are over 2mm wide.

Only full lengths of mat should be laid where possible, especially around the floor perimeter. The number of end laps should be minimised and these should be staggered to avoid excessive linear stress unless positioned under a tiling expansion joint. Expansion joints in the tiling should be located over mat joints so that these are telegraphed through the whole system.

No mat sections should be cut to less than 1.5 metres in length or 500mm in width.



Application of mat

Cut or tear away any residual excess polythene from the edge of the membrane and butt-joint the sides of the sheet. There should be no overlap or gaps between the sheets.

The polythene backing should face down, so that the adhesive is applied to the sandy face of the mat.

Allow the unrolled mat to lay flat overnight to minimise any roll memory. The surface of the mat should then be flattened so that no voids, due to folds, exist beneath the sheet. Where low temperatures exist, the membrane may stiffen even after unrolling overnight. This can be alleviated by tightly reverse rolling (so that the sand side faces outwards) for several minutes, prior to laying the mat. Stubborn mat ends can be bonded to the concrete using a bead of Maxbond that is weighed down to the concrete overnight.

Bonding of adjoining sheets must be carried out by at least two people. With a person standing at either end of the sheet, at the edge away from the lap to be joined to prevent the sheet moving, carefully fold the sheet in half lengthwise.

Perform a similar action on the adjacent sheet and bond impregnated cloth adhesive tape along the edge of the sheet to half the width of the tape and knead the tape on to achieve a good bond. While standing on the outer corners of the sheet to prevent positional movement of the sheet, carefully unfold the sheet back onto the concrete surface ensuring the unbonded edge of the tape is protruding from the edge of the sheet. Next move to the outer corners of the adjacent sheet and carefully fold the sheet back onto the exposed tape edge and tread down firmly to achieve an adequate bond.

Bond any end laps in a similar manner ensuring the relative position of the sheets is maintained. Once the mat has been laid out and bonded into its final configuration then gently sweep the surface with a broom, and vacuum any loose residual sand. The floor is now ready to be tiled.

FIXING TECHNIQUE FOR TILES

Mixing

Mix 20kg ARDEX X 23-P (powder) with 7 litres of the ARDEX X 23-L (liquid).

The working time of the mixed mortar is 1.5 hours at 23°C. Regular stirring will stop the product from thickening. Do not add extra liquid to mixed product.

Do not apply at temperatures below 5°C.

Tiling

- Before fixing ensure the substrate has been prepared and the tiles are free from dust. Tiles should be fixed in accordance with AS 3958:1991.
- As a general guide use a 10mm x 10mm x 10mm notched trowel.
- Working time is 1.5 hours, fixing or open time is approx 10 minutes. Only spread enough adhesive so that the tiles can be fixed within the open time.
- The tiles must be pressed firmly into the freshly combed mortar bed to ensure good contact with the mortar. Slide the tile at right angles to the notch pattern so that the back of the tile is completely covered by the mortar.
- Tiles with ribbed or keyed back profiles should also be buttered so that the voids are filled.
- Grouting can commence after 4 hours (at 23°C). Use Flexgrout Ultrasmooth mixed with Grout Booster.
- Surfaces may take light foot traffic 24 hours after grouting. Allow at least 14 days to fully cure before using cleaning agents.

Positioning of tiling movement joints should comply with AS 3958.1 -1991. Intermediate joints should be inserted at approximately 5 metre centres (equivalent to five widths of Mat that are laid side by side) and on large floors a grid pattern of intermediate joints sized at 5 metre intervals should be established.

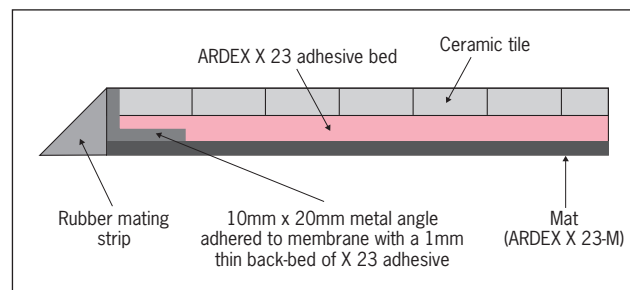
The boundary where the tile edges come into contact with the room perimeter must be framed with either a brass or anodised aluminium angle that should be sized to finish level with the top of the tile. This acts to isolate the tiling system, strengthen the edge row and enables ease of removal of the system.

A perimeter flexible sealant should be incorporated between the edge of the angle and edge of the wall where a watertight seal is required to prevent the ingress of water below the tile surface.

Where a skirting might exist over the system or where the system adjoins a solid fixed wall or parapet then the perimeter aluminium framing can be excluded in lieu of a silicone sealant applied perimeter joint.

Where the tile finishes at a height that is above an adjoining surface then the metal angle should be fixed flush against the tile edge so as to protect it from impact loads. Where high point loads are expected on the tile edge, a hard rubber edge ramp can be used in conjunction with the metal edge angle to prevent the raised tile from acting as a trip hazard. The metal angle is to be adhered to the top of the membrane using a thin 1mm smear of ARDEX X 23 Adhesive during tile application.

Reference should also be made to Technical Bulletin TB 109 "Applying Rapid Cure products in Hot Weather" as the ARDEX X 23 Adhesive is a quick curing product.



TECHNICAL DATA

ARDEX X 23 Adhesive (liquid & powder)

Colour	Liquid - white Powder - light grey
Coverage (per 20kg)	7m ² on floors (using a 10 x 10 x 10mm notched trowel) (Coverage will vary depending on substrate condition and tile type)
Application properties	(@ 23°C and 50% RH)
Mixing ratio	20kg powder with 7L of ARDEX X 23 liquid
Fixing time/open time	Minimum 10 minutes
Working time/pot life	1.5 hours
Adjustability time	Approx 10 minutes
Drying time	4 hours
Storage	Approx 6 months (powder) 12 months (liquid) when stored in the original unopened packaging in a dry place at 23°C
Packaging	Powder: 20kg polylined paper sack in a mixing pail Liquid: 20L cube

DISCLAIMER

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standard, our instructions and recommendations and 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 effect specific installation recommendations.

The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.

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