

Installation guide for Interlocking Rubber Mats

1. Tools you will require

Alignment

- Tape measure or ruler.
- Stringline.



Anchoring

- Hammer drill.
- Drill bit: 10mm for ANC80 anchors.
- Hammer or steel mallet.



Cutting

- Felt marker pen, chalk or white out.
- Chalk line.
- Heavy duty box cutter/craft knife
- Spare blades.
- Lubricant, e.g. CRC 5.56 or WD40 or water.
- Steel straight-edge rule.



2. Numat will provide

- Interlocking mats.
- Edging (where required).
- Anchor bolts, plugs and finishing washers.

3. Preparation of concrete surface

Concrete must be in good condition.

Rubber matting must not be used to cover poor quality concrete. The concrete under-surface must be free of any large cracks, hollows and holes. Any exposed aggregate and any area of concrete that will cause effluent to pond or sediment to collect is non-compliant, and must be repaired or replaced.

Epoxy resins such as Cretex TR and Cretex SL are recommended for repair work. The concrete under-surface must be clean before any repairs are made and before the matting is installed.

4. Install at the correct temperature

Matting must be installed to these exact instructions. These provide joining tolerances for thermal contraction and expansion.

Rubber is a natural product and temperature will cause slight changes in size, with an extent of 0.2% per 10°C. Installation should be carried out in temperatures between 10°C and 25°C to mitigate any expansion and contraction.

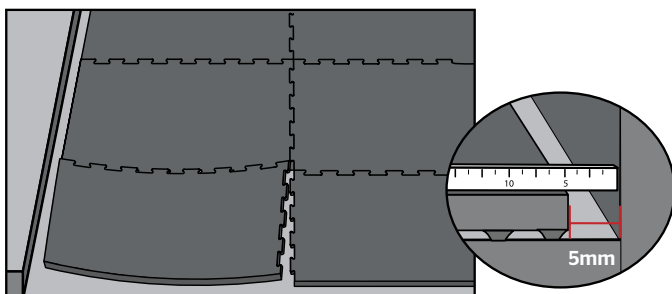
The mats should be set aside for awhile near the installation site so they can adjust to the ambient temperature before they are laid.

Mats must not be fitted too tightly to avoid pressure build-up and bulging in hot conditions.

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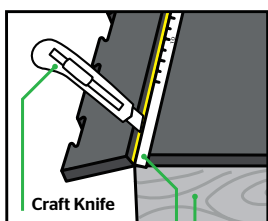
5. Laying out the mats

- Start at the straight edge.
- Retain a 5mm gap to the side edge.
- Cut interlock from edge mats - see cutting instructions (6) and edge profile (7).
- Lay out the complete area, joining mats corner-to-corner and interlocking each mat like a jigsaw.
- Put mats loosely together, lift both mats slightly and pull both mats apart slightly and evenly. At cold temperatures pull the interlock apart so there is a visible gap between the mats.

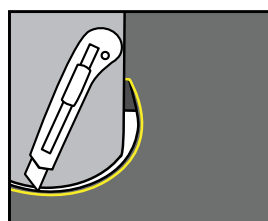


6. Cutting

- Edge mats should have the interlocks removed.
- Mark the mats to be cut with a marker pen or chalk line.
- Use a snap off blade and change the tip for each mat and moisten the knife with lubricant.
- Place mat over an edge or pallet or similar while cutting to open the cut, reducing friction on the blade. Run the knife along a steel straight-edge.
- Use a hole saw to cut 3-5mm into top of mats when cutting curves around poles. For clean cut, finish with knife, then over-cut with knife from bottom to ensure a snug fit.



Craft Knife
Steel Straight Edge | Wooden Pallet



Cutting curves

7. Edge profile

An alternative to cutting Kura mats is to finish the edge with Kura Bevel Edge from Numat.

Kura Bevel Edge is perfect for the points of entry and exit. This will provide a tidy, more resilient edge which will reduce the risk of animals stumbling and help prevent effluent seeping under the mats.



8. Anchoring

IMPORTANT! To ensure proper fit, cut and place all mats **BEFORE** anchoring.

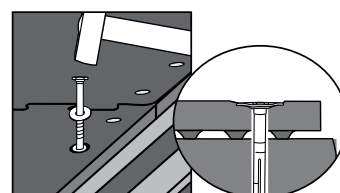
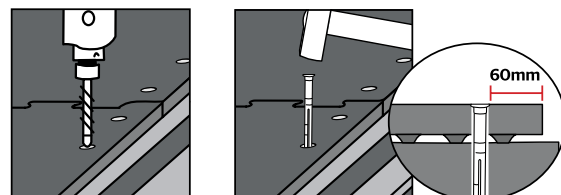
Feedpad, wintering barn alleyway and milking shed entry/exit mats are to be anchored on all four corners.

Holding yard mats are to be anchored in all four corners, except for the removable mats required for sluicing - see page four

Herringbone platform mats are to be anchored at the head end so the mats can be lifted for occasional sluicing.

Edging at the entry and exit access points are to be anchored at approximately 300mm intervals to reduce the risk of lifting when "kicked" by the animals. Measure anchor points accurately using a measuring tape and keep anchor points away from the interlocking lugs, approximately 60mm from the mat edge.

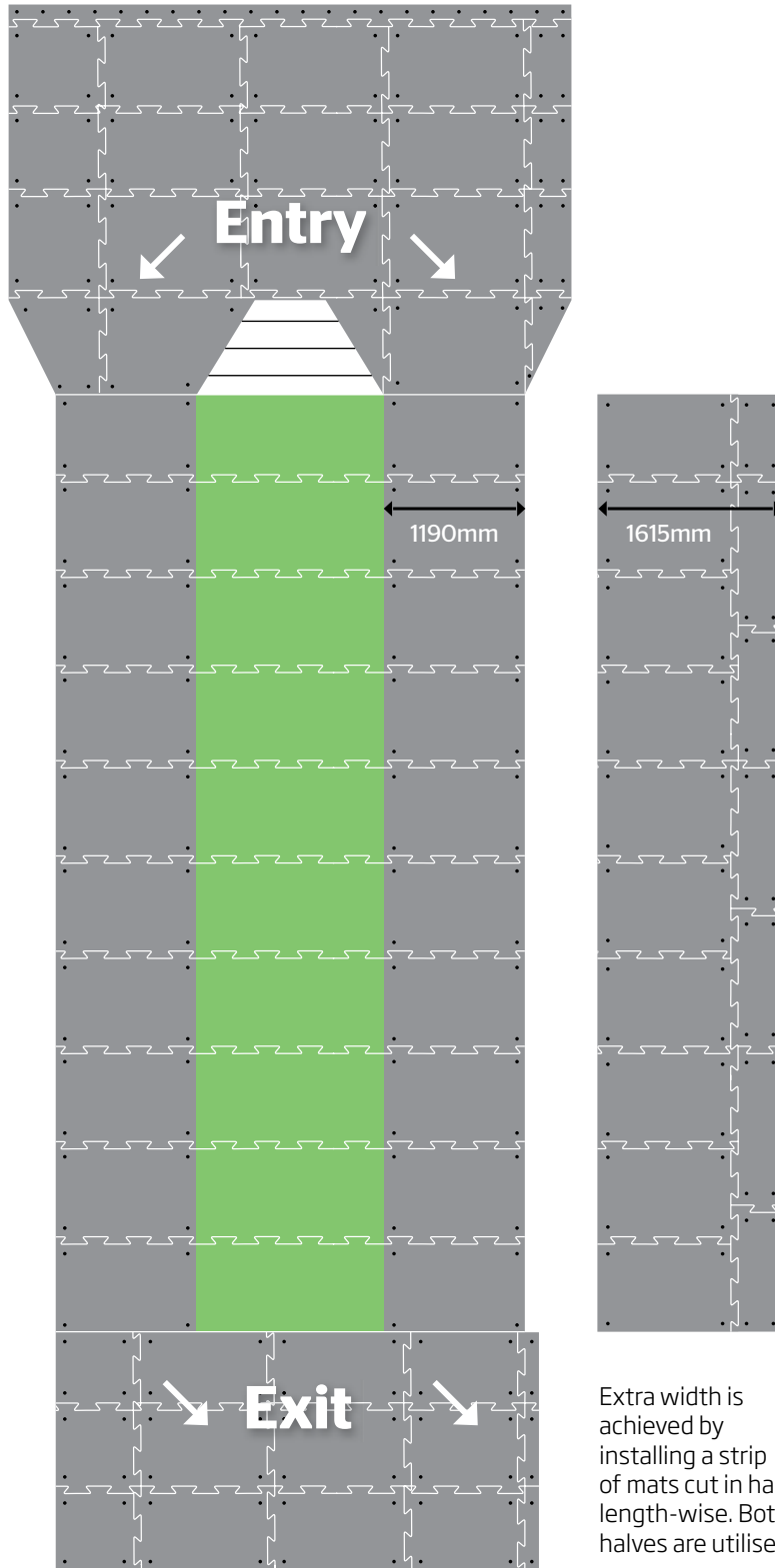
Drill through the mats and into the concrete to a depth of 100mm. Tap in plastic plugs until flush with the surface. Fit the finishing washer to the anchor bolt. Hammer in the anchor bolt until the finishing washer is countersunk slightly. Do not pound too strongly or sink the bolts too deep as this will cause an inwards bulge on your mats.



ANC80

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9. Typical herringbone matting layout



• Anchor points for every corner

Extra width is achieved by installing a strip of mats cut in half length-wise. Both halves are utilised.

Installation and maintenance of matting

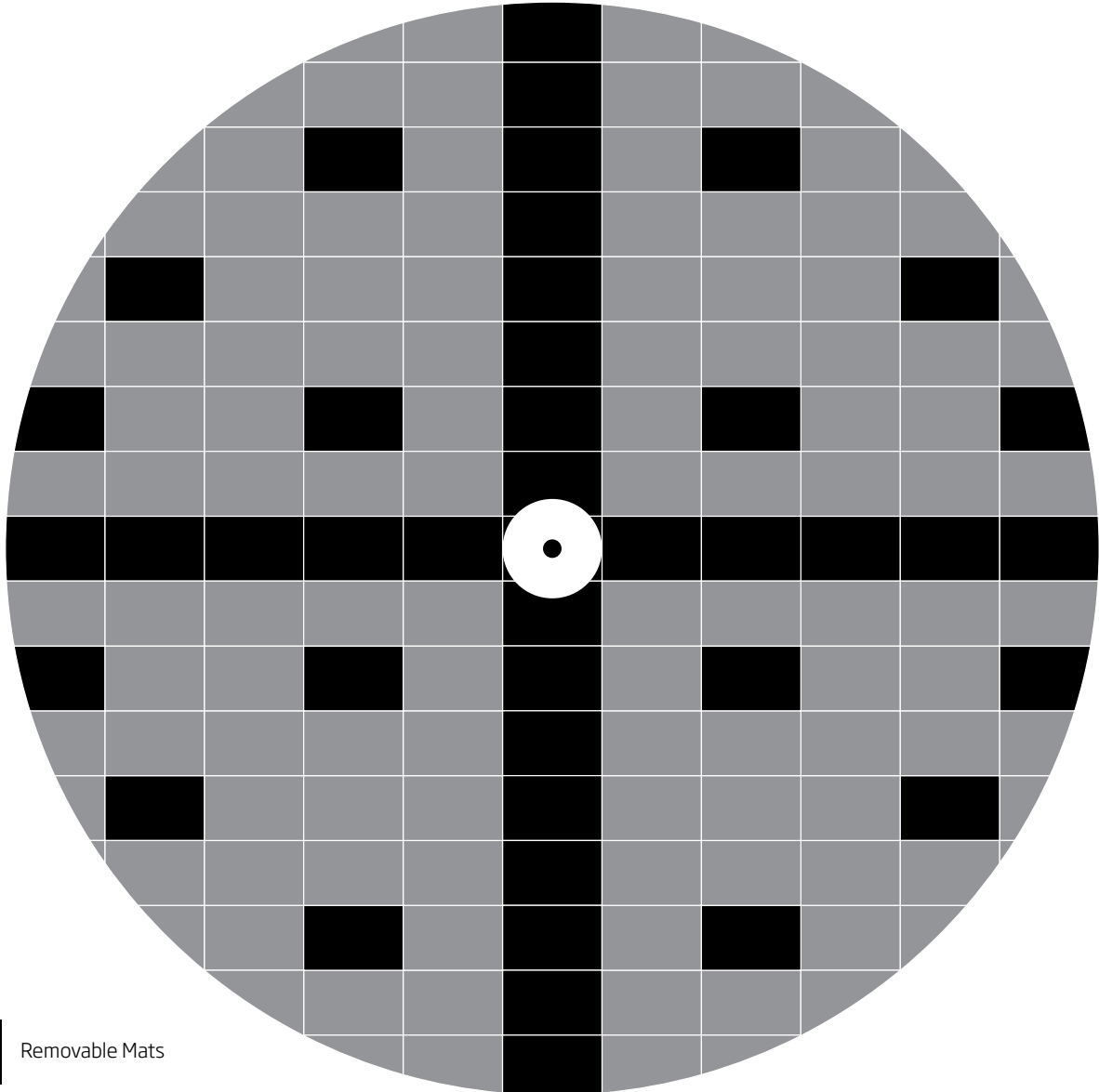
Before installing rubber matting always consider drainage and cleaning. If there is a chance of build up getting under the edge of the matting, we recommend the use of our mud stop ramp edge to be installed. When installing larger areas we also recommend one mat can be removed every 2-3m, so that surrounding mats can be flushed out for cleaning purposes. If any mats are removed for cleaning these must be replaced before stock are permitted on the matting again, (please see diagram of round yard layout).

If installing matting down the bail area, we suggest these are anchored at one side only (usually fastening at the pit side is the best option). This allows for provision for hosing underneath, or lifting the matting back if required, when cleaning. It is important to comply with NZCP1 standards, if in doubt please contact us or your local shed inspector.



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10. Cross design anchor layout for holding yards



Removable Mats



Anchored mats. Each 1.0m² mat will have four anchors.

Matting with a minimum 20mm thickness minimises the risk of effluent and water getting under the mats. However, it is mandatory to provide a series of removable mats to provide drainage when any cleaning is required.

The cross design is a system of removable mats which can be easily lifted to create a series of collection troughs and run-off channels to flush water through as and when required.



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