

Dense Concrete Bases for Cricket Wickets

The following information is offered for guidance when constructing a new concrete base for cricket and is based on a technical document produced by the Cement and Concrete Association.

Before construction starts a decision has to be made whether or not to include steel reinforcing in the slab.

Reinforcing is not required structurally as the slab is non-load bearing but can be introduced to control cracking caused by thermal contraction as the concrete cures.

An un-reinforced slab will crack as a result of shrinkage during the curing process randomly at approximately every 6 metres. These cracks are generally of no detriment to the play of the finished wicket and visually will not be evident once the wicket has been fully surfaced. In view of this therefore most slabs are laid un-reinforced.

By including steel reinforcing mesh it is possible for instance to reduce the amount of cracking in the key area where the ball pitches. By laying up to 6m long panels of mesh with 50mm gaps between, the main contraction cracks should occur at the gap between the reinforcing rather than at random. Where mesh is to be included it should be spaced mid way in the slab and terminate 50mm from the ends and sides.

As an alternative to installing mesh the slab could be constructed in bays with a suitable fibre expansion joint material inserted between consecutive bays. Great care must be taken to ensure the construction joints are level and even.

- Excavate for the slab slightly smaller than the chosen wicket size to allow the carpet edges to be trimmed back neatly on completion. Carpet widths are nominal 2.0m or 2.74m.
- Excavate to the dimensions required to a depth of 125mm.
- Install shuttering to the perimeter and secure with pegs. Care should be taken to ensure the shuttering is level and there are no steps at the joints as the slab will be screeded level off the shuttering. A slight cross fall can be included when setting out the shuttering to allow heavy rain to run off the wicket. This should be no more than 12mm over 2.74m.
- Consolidate the base of the excavation with roller or vibrating plate.
- Lay an even layer 25mm thick of sand to the base of the excavation.
- Lay a polythene sheet of 1000 gauge over the sand layer to form a damp proof membrane. Any joints should be overlapped and taped.
- Install steel reinforcing mesh if being included (see above)
- For bases in excess of 20m long it is recommended an expansion joint is formed centrally across the width of the base.
- Lay 100mm concrete slab using ST4 grade concrete with rounded aggregate. The concrete should be spread evenly over the polythene and then tamped to compact it with a heavy wooden or metal beam from the shuttering. Any surplus concrete should then be struck off using the beam. Finally the surface of the concrete should be finished with a float to produce a "sandpaper" finish. The surface should not be over polished if the playing surface is to be bonded down as the adhesive may not key properly to the concrete.
- Once any surface water has disappeared the slab should carefully be covered with polythene sheet to prevent the concrete drying out too quickly during the curing process which should remain in place for at least 7 days
- Once the slab has cured sufficiently (24/36 hours) the shuttering can carefully be removed to aid the drying out process.
- The completed slab should be left for 4-6 weeks to ensure it is fully dried out before attempting to stick down the playing surface.

The above is intended for typical guidance only and some site conditions may require an alternative specification.

sportsequip.co.uk



sportsequip.co.uk

The Manor, Tur Langton, Leicestershire LE8 0PJ

☎ 01858 545789 (supply only) ☎ 01858 545854 (supply & installation) ☎ & 📠 01353 666136 (Cambridgeshire office)

📠 01858 545954 ✉ sales@sportsequip.co.uk 🌐 www.sportsequip.co.uk

Boyd Sport & Play Ltd trading as sportsequip.co.uk reserve the right to alter or amend specifications without prior notice and cannot be held responsible for any consequences arising out of errors or omissions. sportsequip.co.uk® and Astroturf® are registered trademarks