

Note: Before starting the installation, determine your desired finished paving level, ensuring it is a minimum of 150mm below the Damp Proof Course (DPC) of your building.

Step 1: Prepare the Site

- Mark and excavate the area for your patio, ensuring a depth of 170mm below the finished paving level. This depth accounts for the following layers: 100mm sub-base, 40mm bedding layer, and 30mm of paving slab. (Levels longitudinal, minimum of 1-100, and cross falls, minimum 1-80, for the final pavement are constructed at the sub-grade level, this will allow the water to run off, and avoiding ponding on the finished pavement.
- If the sub-base is to be constructed on weak ground, then the soft areas will require a geotextile to be laid directly onto the ground prior to the installation of the sub-base.

Step 2: Sub-Base Construction:

- Install a Type 1 sub-base, ensuring a final compacted thickness of 100mm. Replicate the levels, longitudinal and cross falls from the sub-grade to allow proper water runoff and prevent ponding.
- If you are unsure about the amount of surcharge needed for compaction, trial an area to determine the required amount. (Note: Think about the amount of surcharge required to achieve a compacted thickness of 100mm. As a rough guide, 125mm of uncompacted Type 1 will compact down to 100mm when fully compacted.)
- Compact the sub-base thoroughly, ensuring a tight and dense surface to prevent loss of bedding course material during construction and use of the pavement.

Step 3: Install Edge Restraints:

- Securely install edge restraints around the perimeter of the patio area before laying the bedding course and paving units.
- The restraints should be robust enough to withstand traffic and should present a vertical face level with the underside of the bedding course and require haunching in concrete to the base and rear to mitigate lateral movement.

Step 4: Bedding Course:

- Prepare a stiff workable mix of M12 mortar, consisting of 1-part cement to 3 parts sharp sand or grit sand. This strong mix ensures frost resistance, and the stiffness supports the weight of the paving.
- Place enough mortar onto the sub-base for one paving unit, distressing the surface if necessary to create ridges. The ridges help achieve a full contact bed and prevent air pockets when the paving unit is tapped down. Do not use mortar dabs, as they can create voids or air pockets beneath the paving slab.
- The final thickness of the bedding layer should be 40mm. The maximum working time for a mortar is typically up to 2 hours. After this time, fresh mortar should be used.

Step 5: Paving Unit Installation:

- Place each paving unit onto the prepared bedding layer, ensuring full contact with the mortar.
- Align the units to maintain proper line and level.
- Compact the units using a paviour's maul, ensuring they do not rock after bedding. Any rocking flags should be lifted and re-laid as necessary.

Step 6: Jointing:

- Lay the paving slabs with joint widths typically ranging from 6mm to 10mm. Exclude the chamfer (if present) from the joint width measurement.
- Prepare a designation M6 sand cement mortar with 1 part cement to 4 parts sand. Firmly press the mortar into the joints using a suitable pointing iron.
- Fill the joints to the full depth of the paving, leaving a gap of 2 to 3mm from the top surface.
- Clean off any excess mortar from the surface of the paving immediately to avoid staining.
- Allow at least 24 hours for the mortar to set before walking on the surface of the paving. During this time, protect the area from any heavy use or disturbance.

By following these step-by-step instructions, you can successfully install wet cast concrete paving as a patio or pavement, providing a durable and aesthetically pleasing outdoor space for your enjoyment.