A one-piece slab should be no more than 3 metres in any direction; nor should the length exceed twice the width. If you plan to exceed these dimensions, divide your slab into equal sections and construct a joint between them of about 12mm. Support these joints while compacting the concrete. These joint timbers can be removed once the concrete has hardened.

3. Mixing the Concrete

Concrete needs to be mixed on a clean hard surface, such as an existing concrete slab or on a piece of board. You can also use a cement mixer if available. Firstly place your measured quantity of sand and add the correct proportion of cement. Mix these materials thoroughly until the colour is consistent.

Add in the coarse aggregate, mix all three ingredients thoroughly again until the colour is consistent. Finally add your measured quantity of water, sprinkle the water slowly over the mix, stopping frequently to turn over the mix until the mix is consistent in colour and texture. Do not add too much water, you do not want your mix too sloppy. Too much water means a weak concrete. The water should weigh roughly half of that of the cement added.

A concrete mix of 1 part cement : 2 parts sand : 4 parts coarse aggregate should be used for a concrete slab.

4. Placing the Concrete

Concrete must be placed within half an hour of mixing. Place your concrete into your formwork; work the concrete into awkward places and corners using a shovel or trowel. Place enough concrete to overfill the formwork slightly. Use a straight edge to spread the excess concrete using a sawing motion, levelling the concrete off to the formwork. Using a wooden float, compact and smooth the surface of the concrete to achieve a consistent mortar finish, this will ensure the concrete is well compacted.

When the bleed water has left the surface and the concrete has started to stiffen, it is time to apply the required finish.

5. Curing

After the finish has been applied it is recommended that the surface be kept damp for up to 7 days after which it can be allowed to fully dry out.

6. Finishes

There is no limit to the finishes that can be given to concrete. A few are explained below:

Trowelled - Using a steel trowel gently work the surface back and forth to create a smooth finish.

Brushed - Using a hard broom you can obtain a deep texture by brushing the concrete while it is still plastic. A softer broom can be used for a less coarse look.

Exposed Stone - Start by applying a soft brushed finish, then when the concrete has hardened sufficiently to prevent the stone particles being dislodged, use a combination of brushing and washing with a hose until the stones are slightly exposed and the surplus slurry is washed away.