

Good practice guide for laying ready-mixed concrete

First, a health warning

Caution for everybody handling cementitious material, concrete and screed

Fresh concrete or screed can cause serious burns to skin and eyes as well as skin disease and dermatitis. Do not swallow. Keep out of reach of children and animals. Immediately wash off any fresh cementitious material from the skin and thoroughly washout any affected eye. If swallowed do not induce vomit but seek medical advice. Wear protective clothing (such as goggles, gloves, impervious boots, trousers and long sleeved clothing). Immediately remove any clothing or item saturated with cementitious material and wash thoroughly before reuse. Seek medical attention if symptoms persist or in the case of doubt.

- Concrete is highly alkaline and can cause burns. Prolonged skin contact can cause severe irritation
- We strongly recommend that you wear non-porous clothing with long sleeves plus gloves, boots and knee pads.
- If concrete splashes onto your skin or into your eyes, wash without delay.
- Remember, concrete is heavy. Do not risk hurting yourself by attempting to move more than you can comfortably wheel in a barrow.

Tools

You will need:

- Timber to create shuttering
- A builder's wheelbarrow with rubber tyres
- Planks to run the barrow on
- A screed board
- Shovels
- Wooden float
- Mallet
- Steel trowel
- Spirit level
- Tamping tool
- A rake
- A grooving tool

Stage 1 – Measure up

Measure your site and use our <u>concrete calculator</u> to work out how much concrete you need to order.

Stage 2 – Set out your site

Mark out the site with string and stakes. Think in particular about the proximity of tree roots and how your site will drain. Remove the topsoil, leaving enough room for your shuttering,

Stage 3 – Build shuttering

Set up your shuttering, which is usually made with planks on edge and retained with stakes. To ensure good drainage, allow the shuttering to fall slightly to one side – around 10mm per metre. The site and the shuttering should be sprayed with water the night before the concrete pour and damped again before the truck arrives.



Stage 4 – Take your delivery

You need to think about the size and weight of our truck when ordering your concrete. Is the access and the surface adequate to cope with a truck eight metres long, 2.5 metres wide, 4 metres high and weighing 32 tonnes when loaded? You may want to protect your lawn or driveway with planks, and do think about drains and manholes as we cannot take responsibility for any damage. If you are building a driveway, you can save yourself lots of manual handling if the truck can drive between the shuttering. Recruit friends to help and have tools ready to avoid delaying the truck's departure.

Stage 5 – Place the concrete

If our truck is unable to get close to the site, use a contractor's wheelbarrow with rubber tyres and run it on planks. Compact the concrete thoroughly with shovels, trying not to contaminate it with soil. Loads should be placed so that they overlap when tipped.

Stage 6 – Screed the concrete

Screed your concrete by running a 100mm x 50mm piece of timber across the surface in a sawing fashion, preferably with one person at each end of the board. It is helpful if another person works at the front edge of the board to fill low spots and remove build-up.

Stage 7 – Float the concrete

Floating the concrete agitates the surface, compacts the material and fills any voids. You can buy a float or make your own from a piece of wood about 300mm x 100mm and adding a wooden handle. Apply light pressure and tilt the float slightly upwards.

Stage 8 – Finish the surface

Allow the sheen to leave the surface and the material to begin to harden before you finish the surface. Attempt it too soon and your steel trowel will dig in or bring water and cement to the surface. Kneel on a board to reduce pressure on the wet concrete surface. Clean your tools and cover the concrete with plastic or sacking if there is a risk of rain or frost. When the job is done, thoroughly rinse your tools.

Stage 9 - Create expansion joints

For a truly professional look, you may want to buy or hire a grooving tool to cut grooves about two metres apart. The purpose is to ensure that any shrinkage cracks follow a given line and are, therefore, hidden.

Stage 10 – Allow the concrete to cure

If your concrete dries out too quickly, it will crack and lose strength. To avoid this it is helpful to keep the concrete moist for at least a week depending upon the weather.

Stage 11 - Remove shuttering

Don't remove your shuttering until the concrete is strong enough to take the weight it has to bear. Take care not to damage the edges as you remove the boards.