What to check when ordering concrete for foundations and structural slabs

Getting the mix right before the truck arrives

Ordering concrete for a foundation or a structural slab is not as simple as calling for a load and hoping for the best. A pour that fails because the mix was wrong, the volume was off, or the site wasn't ready can cost time, money, and rework. The checklist below covers the main points to confirm before the first cubic metre lands on site. Working through them with your supplier means the concrete that arrives matches what the design calls for and that the site is prepared to handle it.

1. Confirm the strength class and mix design

Every foundation or structural slab has a specified compressive strength. This is given as a strength class such as C25/30 or C32/40, where the first number is the cylinder strength and the second is the cube strength in megapascals. The structural engineer's drawings or the specification document will state which class is needed. Ordering a lower strength than required risks cracking or failure under load. Ordering a higher strength can mean unnecessary cost and, in some cases, a mix that is too stiff to place and finish properly.

The mix design also matters. For a reinforced slab, the concrete must flow around the steel without leaving voids. That often means a specific slump or a self-compacting mix. For a foundation in sulfate-bearing ground, the mix may need sulfate-resisting cement. Tell your supplier the intended use, the reinforcement details, and any ground conditions you know about. A reputable supplier will help you match the mix to the job, but it is your responsibility to pass on the correct information.

2. Calculate the volume accurately and allow for waste

Under-ordering concrete is a common mistake. A shortfall halfway through a pour is awkward and can create a cold joint if the next load does not arrive in time. Over-ordering means paying for material that goes to waste. Measure the length, width, and depth of every section of the foundation or slab. For a strip footing, multiply the cross-section area by the total length. For a slab, multiply the area by the thickness. Add a small allowance for variations in ground level and for spillage during placing. A typical safety margin is five to ten percent, but check with your supplier, some include a small tolerance in their own calculation.



If the slab has complex geometry, recesses, or thickened edges, break it into simple shapes and add them up. Get a second person to check the figures. The supplier will usually confirm the volume when you place the order, but the numbers you give them are the starting point. If you are unsure, ask the supplier to help with the calculation. Many will do this as part of their service, and it can save a costly mistake.

3. Plan the pour schedule and site access

Concrete does not wait. Once the mixer truck leaves the plant, you have a limited window before the concrete begins to set. That window depends on the ambient temperature, the mix design, and whether retarder has been added. For a large slab, you may need several trucks arriving in a carefully timed sequence so that each load can be placed and compacted before the previous one hardens. Discuss the pour schedule with your supplier well in advance. Tell them the size of the pour, the expected weather, and how you plan to place the concrete, by pump, chute, or wheelbarrow.

Site access is another thing to sort before the day of the pour. The delivery truck needs a clear route to the pour point, a solid standing area, and enough room to manoeuvre. Soft ground,

narrow gates, overhead cables, or low branches can stop the truck from getting close enough. If the truck cannot reach the pour, you will need a concrete pump or a longer chute, which adds cost and requires a separate booking. Check the access yourself and, if in doubt, ask the supplier to send someone to look at the site. It is better to find a problem a week before the pour than on the morning of the delivery.

4. Check the quality control measures

Quality control starts before the concrete leaves the plant. Your supplier should be able to provide a delivery ticket for each load that shows the mix design, the batch number, the time of batching, and the strength class. On site, you can carry out simple checks. The slump test measures workability and is a quick way to see whether the concrete matches what was ordered. A sample can be taken for cube testing to confirm the compressive strength later. The cubes should be made, cured, and tested in accordance with the relevant standard, usually BS EN 12390 in the UK.

If the concrete arrives and looks too wet, too dry, or has started to set, reject it. A driver may offer to add water on site to make it flow better. Adding water changes the water-cement ratio and reduces strength. Do not accept it unless the supplier's technical team has approved a controlled addition of a retarding admixture. For a structural slab or a foundation, the concrete must meet the specification from the moment it leaves the plant. On-site adjustments are rarely a good idea.

5. Coordinate the site team and equipment

A concrete pour is a team operation. On the day, you need enough labour to place, spread, compact, and level the concrete before it stiffens. For a small foundation, two or three people may be enough. For a large slab, you may need a gang of six or more, plus a concrete pump operator and a finisher. Make sure everyone knows the plan: where the concrete will arrive, how it will be moved, which areas get poured first, and what to do if a problem arises.



Equipment must be ready and checked. Compaction is essential for structural concrete, a poker vibrator removes air pockets and ensures the concrete fills the formwork completely. The vibrator must be in good working order, with a spare on site if possible. For a slab, a screed board or a power float will be needed to level and finish the surface. Formwork must be clean, oiled, and braced to withstand the pressure of wet concrete. Have enough cover spacers and chairs to keep the reinforcement in the correct position. A few hours of preparation on the day before the pour can make the difference between a smooth operation and a scramble.

For more information on specifying the right mix and arranging delivery for your project, many builders and contractors find it useful to check the details available at staceyconcrete.co.uk. The site provides guidance on the types of concrete commonly used for domestic and construction foundations, as well as advice on site preparation and delivery logistics. Taking a few minutes to review that information before you place your order can help you avoid common pitfalls and ensure that the concrete you receive is exactly what the job requires.

6. Confirm the delivery details and paperwork

Before the first truck leaves the depot, confirm the delivery address, the contact number for the site, and the arrival time. If you need multiple loads, agree on the interval between them. Some suppliers charge for waiting time if a truck is held up on site, so have your team ready to unload promptly. On the day, check each delivery ticket as the truck arrives. The ticket should show the mix, the volume, the time, and any additives. Keep the tickets together; they are your record of what was supplied and can be important if there is a dispute or a test failure later.

If the project is a large structural slab or a retaining wall, you may also need a method statement from the supplier that describes how the concrete will be produced and delivered. Some clients or structural engineers require this as part of the quality assurance paperwork. Ask your supplier what documentation they can provide and whether they can supply a certificate of conformity for the mix. For a domestic foundation, the delivery ticket is usually enough, but it never hurts to have the supplier’s technical support number handy in case something goes wrong.

7. Plan for the weather

Concrete does not like extreme weather. In hot conditions, the water in the mix can evaporate too quickly, leading to plastic shrinkage cracks. In cold weather, the hydration reaction slows down, and the concrete may not gain strength fast enough to be safe. If the temperature is forecast to drop below five degrees Celsius within the first 24 hours after the pour, you may need to insulate the slab or use a heated enclosure. If the weather is very hot, consider pouring early in the morning or late in the evening, and have a spray bottle or wet hessian ready to keep the surface moist after finishing.



Rain is another risk. Fresh concrete can be damaged by heavy rain, which washes the cement paste from the surface and leaves a weak, sandy layer. Have a cover such as polythene sheeting ready to place over the pour if rain is forecast. Check the weather forecast for the day of the pour and the following day. If conditions look bad, it may be better to postpone than to pour and then try to fix a damaged surface. Your supplier will usually be flexible about rescheduling if you give them enough notice.

Working through each of these points before the concrete arrives helps ensure that the foundation or structural slab meets the design requirements and lasts for decades. The mix must be correct, the volume must be right, the site must be ready, and the team must know what to do. A small investment in planning at the ordering stage saves time, money, and frustration on the day. For anyone starting a building project, taking the time to understand the ordering process and discussing the details with a knowledgeable supplier is one of the best steps you can take. Reliable information, such as that available through **staceyconcrete.co.uk**, can make the process clearer and help you get the results you need from your concrete pour.