What to check before ordering concrete for a new slab

Ordering concrete for a new slab can feel straightforward until you realise how many decisions affect the final result. A slab needs to bear its load without cracking, sit level, and cure properly. Getting the mix wrong means costly rework or a surface that fails too soon. A practical checklist helps you avoid the common pitfalls and ensures the concrete you order matches the job.

Check the strength grade for the slab's purpose

Not all concrete is the same strength. The grade, often labelled C20, C25, C30 and so on, tells you the compressive strength in newtons per square millimetre. A garden path or a shed base will need a lower grade than a garage floor or a driveway that takes vehicle weight. For a domestic slab that will see cars, a C25 or C30 is typical. If you are unsure, ask your supplier what grade suits the load you expect. The wrong grade leads to cracking or surface wear far earlier than it should. Strength grade is one of the first things to confirm with the supplier before they load the truck.

Confirm the right mix for foundations

A slab is only as good as what it sits on, but the concrete itself has to be right for the ground conditions. If the slab is part of a foundation for a wall or a small structure, the concrete needs enough cement and aggregate to handle the ground movement and the load from above. The right mix for foundations will usually have a higher cement content and a controlled water content to keep shrinkage low. It is worth describing the ground type to your supplier - clay, sand, or fill - so they can adjust the mix. A foundation slab that uses a mix meant only for a footpath can crack under the weight of the building above.

Think about the aggregate size

The stone or gravel in the concrete is the aggregate, and its size matters for how the concrete flows into the slab. For a slab that is 100 mm thick or less, a 10 mm aggregate works best because it fills the formwork evenly without leaving voids. For thicker slabs, 20 mm aggregate is common and gives more strength per cubic metre. If the slab has reinforcement mesh or rebar, smaller aggregate helps the concrete pass through the gaps. Ask the supplier what aggregate size they recommend for your slab thickness. Too large an aggregate can leave weak spots where the concrete cannot reach.



Specify the water content and slump

Water content controls how workable the concrete is. A wetter mix pours more easily but loses strength and shrinks more as it dries. The slump test measures this: a higher slump means a wetter mix. For a flat slab, a slump of 75 mm to 100 mm is usually right. It flows enough to level off but stays stiff enough to hold its shape. If you order a mix that is too wet, the slab may crack and the surface can dust. If it is too dry, it may not fill the corners of the formwork, leaving honeycombing. Tell the supplier the slump you need and check it when the truck arrives. A simple slump test takes seconds and saves problems later.

Calculate the volume accurately

Concrete is sold by the cubic metre, and ordering too little leaves you short, while too much wastes money and material. Measure the slab area in metres, multiply by the thickness in metres, and add a small allowance for uneven ground or spillage. For a slab 5 m by 4 m and 0.1 m thick, the volume is 2 cubic metres. A 10 per cent overage adds 0.2 cubic metres, giving a total of 2.2 cubic metres. If the slab has complex shapes, break it into rectangles and add them up. Suppliers can help with the calculation if you give them the dimensions, but it is worth

double-checking yourself. An accurate volume means no frantic calls for a top-up load and no leftover concrete that you have to dispose of.

Plan for delivery access

A concrete truck is heavy and long. Delivery access needs to be wide enough for the truck to reach the pour point, ideally within 30 metres of the slab. If the truck cannot get close, you may need a pump, a wheelbarrow run, or a smaller vehicle. Check the route for low bridges, narrow gates, or soft ground that could bog the truck. The driver will need a clear turning area. Tell the supplier about any access restrictions when you order, so they can bring the right equipment. A delivery that cannot reach the slab leads to delays and extra cost for a pump or additional labour.

Arrange for the right weather conditions

Concrete cures best in moderate temperatures. Hot weather makes the water evaporate too fast, causing cracking, while cold weather slows the curing and can freeze the mix before it gains strength. If the forecast is above 25 degrees Celsius, ask for a mix with slower setting time or plan to cover the slab with wet hessian and plastic sheeting. If temperatures are near freezing, the supplier may add an accelerator or you can insulate the slab after pouring. The weather affects the water content and the curing time, so check the forecast before you order and tell the supplier if conditions are extreme. A slab poured in bad weather without adjustments will not last as long as one poured in mild conditions.

Prepare the subgrade and formwork in advance

The ground under the slab needs to be level, compacted, and free of organic material. Soft spots should be dug out and replaced with hardcore, then compacted again. The formwork - the wooden or metal edges that shape the slab - must be level and fixed so it does not move when the concrete is poured. Check the depth and the slope for drainage. If the slab is for a garage or a shed, a slight fall away from the building stops water pooling. Getting the subgrade and formwork ready before the concrete arrives means the pour can happen without delays. A well-prepared base uses less concrete and gives a stronger slab.



Decide on reinforcement

Reinforcement adds strength and controls cracking. For a slab that will carry vehicles or heavy loads, steel mesh or rebar is standard. The reinforcement sits in the middle of the slab thickness, held up on small plastic or concrete chairs. For a thin slab like a garden path, you may not need it, but a mesh layer still helps if the ground is uneven. Tell the supplier if you plan to use reinforcement, as the mix may need a smaller aggregate to flow around the steel. Without reinforcement, a slab on poor ground can crack along the weak spots. It is a simple addition that extends the life of the slab.

Check the delivery timing and your labour

Concrete starts to set within about two hours of batching. That time includes the travel from the plant and the pour itself. You need enough people on site to spread, level, and finish the concrete before it stiffens. For a small slab, two people may be enough. For a larger one, a team of four or five plus a concrete pump may be needed. Tell the supplier how much time you expect for the pour, so they can add a retarder if needed. A delay in finishing means a slab that

is hard to work and may have a poor surface. Plan the pour for a time when you have the labour and the weather on your side.

Order the right mix for foundations when the slab supports a structure

If the slab is part of a building foundation, the concrete has to meet structural standards. That means a higher strength grade and often a mix designed to resist sulphate attack from the ground. The right mix for foundations will have a specified cement type and a low water-cement ratio to keep shrinkage to a minimum. Your supplier will ask for the foundation depth and the soil type to get the mix right. A foundation slab that uses a standard driveway mix can fail over time, leading to settlement or cracking in the walls above. It is worth the extra care at the ordering stage.

Understand the load size and delivery charges

Concrete suppliers have a minimum load size, usually around 1 cubic metre. Smaller loads cost more per cubic metre because of delivery and transport costs. If your slab needs less than the minimum, consider combining your order with a neighbour's job or using a smaller mixer. The load size also affects the delivery charge, which depends on distance and access. Ask the supplier for a quote that includes the delivery fee and any surcharges for small loads or difficult access. Knowing the total cost before you order avoids surprises on the invoice. A clear conversation about load size and delivery charges helps you budget accurately.



Check the supply of water and tools on site

You will need a water supply for cleaning tools and for any wet curing after the pour. A hose or a few buckets of water near the slab saves trips to the tap. Tools like a shovel, a rake, a straightedge for levelling, and a float for finishing should be ready before the truck arrives. If you plan to use a concrete vibrator to remove air pockets, check it works and you have fuel or power. A lack of water or missing tools during the pour leads to rushed work and a poor finish. A simple checklist of tools and water saves stress when the concrete is on site.

Ordering concrete for a new slab does not have to be complicated if you work through these points before you call the supplier. Strength grade, water content, aggregate size, volume, access, weather, subgrade, reinforcement, labour, timing, and load size all play a part. Each one affects the quality and the cost of the finished slab. A few minutes of planning and checking at the ordering stage saves days of fixing problems later. The supplier is there to help, but the responsibility for getting it right starts with you.