Paths, shed bases, or garage floors, which concrete mix for which job

Why the right mix matters for garden projects

Concrete is a versatile material, but not all concrete is the same. When you plan a garden project, the choice of mix can affect how well the finished surface holds up over time. A garden path, a shed base, and a garage floor all place different demands on the concrete. Understanding those differences helps you choose a mix that suits the job without over-specifying or under-specifying.

What garden projects ask of concrete

Garden projects are exposed to weather, ground movement, and varying loads. A path needs a surface that resists cracking under foot traffic and occasional wheelbarrow use. A shed base must support a static load evenly, without sinking or tilting. A garage floor has to cope with vehicle weight, oil spills, and the constant movement of tyres. These demands affect the concrete's strength, thickness, and the preparation needed underneath.

Paths: light traffic, good finish

For a garden path, the concrete does not need to be extremely strong, but it does need to be durable against frost and everyday wear. A standard C20 or C25 mix (sometimes labelled ST2 or ST3) works well for most domestic paths. The concrete should have a consistent slump so it can be spread and levelled easily. Reinforcement is rarely necessary for a path unless the ground is poor or the path will carry vehicles. A sub-base of compacted hardcore or type 1 material, around 75-100 mm deep, provides drainage and prevents the concrete from cracking due to ground movement. Paths are often laid with a slight fall to shed rainwater, which also helps prevent surface damage from standing water.

Shed bases: stable and level

A shed base supports a structure that may be heavy, especially if it stores tools, furniture, or machinery. The concrete needs to be strong enough to prevent cracking under the load, but the main requirement is a level, stable surface. A C25 mix is common for shed bases, laid at a thickness of 100-150 mm. A sub-base is essential: at least 100 mm of compacted hardcore or similar material. Without proper compaction, the concrete can settle unevenly, causing the shed floor to slope or crack. Reinforcement in the form of steel mesh or fibres can help control cracking, though for a standard domestic shed it is not always essential. The concrete should

be finished with a smooth or lightly brushed surface, depending on whether you want a slip-resistant floor inside the shed.



Garage floors: heavy loads and durability

A garage floor takes the heaviest use of the three. It must support the weight of a vehicle, resist oil and chemical spills, and stand up to the abrasion of tyres and foot traffic. A C30 or C35 mix (sometimes ST4 or ST5) is more suitable here. The extra strength comes from a higher cement content and a well-graded aggregate. Thickness should be at least 150 mm, and a sub-base of 100-150 mm of compacted material is important to prevent the slab from cracking under load. Reinforcement is strongly recommended, either with steel mesh or with fibres mixed into the concrete. The floor should have a smooth, dense finish that is easy to clean, but not so smooth that it becomes slippery when wet. A control joint cut into the slab after pouring can help manage cracking as the concrete cures and shrinks.

Sub-base: the hidden foundation

The sub-base is often overlooked, but it is critical for all three projects. It provides a stable platform, distributes the load, and allows water to drain away from the concrete. Without it, the

concrete can crack, sink, or heave as the ground moves with moisture changes. For paths, a 75-100 mm sub-base is usually enough. For shed bases and garage floors, 100-150 mm is typical. The material should be well-compacted, either as a single layer or in two lifts if the depth is more than 150 mm. A geotextile membrane underneath the sub-base can help separate it from the soil and improve drainage in clay or wet ground.

Reinforcement: when and how much

Reinforcement adds tensile strength to concrete, which is weak in tension. For a path, reinforcement is rarely needed unless the ground is poor or the path will carry vehicles, in which case a light steel mesh or polypropylene fibres can help. For a shed base, fibres are a convenient option because they mix into the concrete without needing to be positioned. For a garage floor, steel mesh is more common and is placed at the correct height within the slab. The reinforcement should be supported on plastic chairs to keep it in the middle third of the slab, where it is most effective. Fibres are simpler but may not provide the same level of crack control for heavy loads.

Formwork and curing

Good formwork is essential to keep the concrete in shape while it sets. For paths, timber boards held in place with pegs work well. For shed bases and garage floors, the formwork must be strong enough to hold the weight of wet concrete without bowing. The concrete should be poured, compacted with a tamping beam or a vibrating poker, and then finished with a float or trowel. Curing is the process of keeping the concrete moist so it gains strength. Covering the surface with damp hessian, polythene sheeting, or a spray-on curing compound prevents the water from evaporating too quickly. Curing should last at least three to seven days, longer in hot or windy weather. Rushing this stage can lead to surface dusting, cracking, or reduced durability.

Choosing between ready-mix and site-mixed

For larger projects, ready-mixed concrete delivered by a supplier is often more convenient and consistent. It arrives at the correct strength and slump, so you can focus on placing and finishing. For small paths or shed bases, you might mix your own from bags, but this requires careful measuring of cement, sand, and aggregate. Ready-mix saves time and reduces the risk of a mix that is too weak or too wet. A Derbyshire supplier such as Stacey Concrete provides ready mix concrete, concrete mixes, delivery and customer support for domestic and construction projects, which can simplify the process for garden jobs. The key is to plan the pour so that the concrete is used within its working time, usually around two hours from batching.



Weather and timing

Concrete sets best in moderate temperatures, between 10 and 25 degrees Celsius. In cold weather, the hydration reaction slows down, and frost can damage the surface. In hot weather, the water evaporates too quickly, leading to cracking. If you are pouring in summer, have shade or windbreaks ready, and dampen the sub-base to stop it drawing water out of the concrete. In winter, use blankets or insulation to keep the concrete warm while it cures. Avoid pouring concrete onto frozen ground, because the thaw will cause uneven settlement.

Matching the mix to the job

The table below shows typical strengths and thicknesses for the three projects, but always check with your supplier for local conditions and the exact mix you need.

- Paths: C20/C25, 75-100 mm thick, 75-100 mm sub-base, no reinforcement usually needed.
- Shed bases: C25, 100-150 mm thick, 100-150 mm sub-base, fibres or light mesh optional.

- Garage floors: C30/C35, 150 mm thick, 100-150 mm sub-base, steel mesh or fibres recommended.

These are guidelines. If your ground is particularly soft, you have heavy vehicles, or you want a higher specification, adjust accordingly. A consultation with a concrete supplier or a structural engineer can give you confidence in the final choice.

Finishing touches

The surface finish of the concrete affects both appearance and safety. A brushed finish, created by dragging a broom across the wet surface, gives good slip resistance for paths and garage floors. A smooth trowelled finish is easier to clean but can be slippery when wet. For a shed base, a smooth finish is fine because the floor will be covered. Control joints should be cut into the concrete within 24 hours of pouring to guide any cracking that occurs during curing. Joints should be spaced at about 2-3 metres for paths, and 3-4 metres for larger slabs. Use a jointing tool or a concrete saw for clean lines.



Common mistakes to avoid

One frequent error is making the concrete too wet. A wet mix is easier to work but weaker and more prone to cracking. Another is skipping the sub-base, especially on clay soils, which leads to sinking and cracking. Pouring concrete onto dry ground can also cause problems, as the soil absorbs water from the mix and weakens it. Finally, neglecting curing is a common oversight that reduces the concrete's long-term strength. Simple steps like covering the slab with plastic sheeting and keeping it damp make a real difference.

Choosing the right concrete for garden projects comes down to understanding the load, the ground conditions, and the environment. A path, a shed base, and a garage floor each have different requirements, but the principles of good sub-base, correct mix strength, proper reinforcement, and thorough curing apply to all of them. Getting these right means a surface that lasts for years without problems. For projects around the home, a reliable mix from a trusted supplier like Stacey Concrete can help ensure a successful result, but the planning and preparation are just as important as the concrete itself.