

How Does it all work?

When the dry ingredients of the concrete are mixed with water, a continuing reaction between the cement and the water begins, causing the cement particles to adhere to each other, to the inert aggregate particles and to other materials such as brick, precast concrete and metal (including your tools if not kept clean!)

A fairly fluid, workable concrete mix will stiffen with time, the length of which is determined by a number of factors such as temperature, but a normal mix will remain workable for about two hours on a normal temperate day. In high summer the working time may be considerably cut to perhaps one-and-a-half hours or even less. The reverse will happen on a cold or overcast day when the mix will stay workable rather longer. For concreting in frosty weather, please read our special advice-note on "Cold Weather Concreting" by clicking here .You may also collect a hard copy from our Devon Sales Office.

Concrete attains its notional maximum strength after 28 days. It will have little useful strength for the first three days or so. After seven days (longer in cold weather) it will have approximately two-thirds of its notional final strength. As long as there is free water in the concrete, it will go on slowly gaining strength more or less indefinitely.

It is important to remember that strength is gained only as long as there is free water present to maintain the cement/water reaction. Concrete and mortars do not harden by drying out. During the first few days after laying of the fresh concrete and when the reaction is at its most vigorous, it is indeed necessary to prevent moisture loss and assist proper curing by covering the work with polythene sheeting or Hessian kept damp.

Now that you understand concrete, let's get on with the job... now see "Planning the Job".