



INSTRUCTIONS FOR USE OF CONCRETE MIX

Laying concrete. The concrete mix must be laid within about 1.5 hours after mixing. If the laying takes longer, a set retardant or concrete with a set retarder should be used. Placing the concrete after 1.5 hours has a negative effect on its compression strength.

It is essential to compact the concrete while avoiding over-compaction. Excessive vibration will cause the constituents of the concrete mix to fractionate.

Concreting in warm weather. The higher the temperature of the concrete mix, the faster the concrete will set. If the temperature of the concrete mix and the surrounding environment exceeds 20 °C, after-care must be started immediately. When concreting in hot and windy weather, particular care must be taken to prevent rapid drying of the concrete, which leads to cracking and loss of strength.

Concreting in cold weather. When concreting at low temperatures, it should be borne in mind that the concrete stops setting below 0 °C. When concreting at temperatures below +5 °C, it is essential to heat the concrete or, if this is not possible, to protect it from heat loss. If it is still necessary to concrete in the temperature range of 0...15 °C, freeze-resistant concrete should be used (not recommended for load-bearing structures). Be sure to prevent the concrete from freezing before it reaches the strength of 5 MPa. When concreting in winter, we recommend using concrete that is a grade or two stronger and definitely warm.

Adding water to concrete is prohibited! To improve workability on site, adding water to the concrete mix is forbidden, as it reduces the compression strength of the concrete. When water is added to the mix at the request of the contracting authority, the delivery note shall state the quantity of water added, the time and the quantity of concrete, and the name of the person giving the order, who must sign the note. The responsibility of adding water rests entirely with the person giving the order.

Aftercare. After concreting, the concrete must be wetted to prevent cracking and water deficits. Wetting can only be started when the water does not wash away the cement and other fine ingredients from the surface. Concrete should not be watered at low temperatures, as the added cold water will further cool the concrete.

For winter concreting, the concrete must be covered with a heat-insulating material to ensure that the concrete is at the required setting temperature and to prevent drying. Cover as soon as possible after pouring the concrete.