

**(Recommendations based on BS5328)**

British Standard 5328 stipulates that the temperature of concrete shall not be less than 5°C at the point and time of discharge. Variations may be agreed upon at customer's risk.

It should be understood that admixtures such as calcium chloride etc. are accelerators, which will increase the rate of hardening of concrete, provided the work is fully protected during the hardening period.

Increased strength of concrete develops through the hydration of cement. This chemical process requires that the temperature within the concrete does not fall below a certain level. At near freezing temperature of the concrete, as opposed to air temperature, the hydration process will cease. Severe damage will normally result if the temperature is allowed to fall to a point at which the free water in the mix freezes.

We shall supply concrete under the conditions given below, and the temperature will be that prevailing at our works.

1. Air temperature 0°C or below: With or without additives at customers' risk only.
2. Air temperature 0°C and rising: Accelerators will be added to the concrete at additional cost and subject to the work being given adequate protection as stated above.
3. Air temperature 2°C and rising: Concrete may be batched normally, but if the temperature is only a little above 2°C, and for afternoon deliveries, it is advisable to request the addition of an accelerator and to take all other precautions.
4. Air temperature 2°C and falling to 0°C: as at 2) above.
5. Delivery Notes for concrete delivered at the customer's own risk will be marked accordingly, together with the air temperature at our works.
6. No concrete will be supplied when aggregates are frozen, or when conditions are such that the mixer truck cannot be kept ice-free.

All formwork must be free from snow and ice. Standing water must be mopped up. Reinforcement in particular must be clean and totally ice-free before any concrete is placed. You are also reminded that calcium chloride based accelerators can cause corrosion to any reinforcing steel used. Fibermesh® (crack-control reinforcing) can be used in place of A142 steel mesh.