# Unit 112: Construction operations and civil engineering operations

# Worksheet 33: Concrete – curing (tutor)

1. Read the following information and complete the gaps using the words at the foot of the page.

**Curing concrete**

The setting and hardening of cement depend on the presence of water. Drying out, if allowed to take place too quickly, results in low strength and possible cracks in the concrete. So, the curing of concrete is the retaining of the moisture within the concrete for as long as possible allowing the concrete to reach its maximum designed strength.

**Green concrete**

This does not refer to its colour but is the term given to newly laid concrete, this is the period between the initial set and the final set of the concrete.

**Methods of curing**

To prevent evaporation of moisture and the consequent formation of cracks in the surface, the curing of horizontal surfaces exposed to the sun or drying winds must begin immediately the concrete has been placed and finished. One method of doing this is to erect a grid just above the surface of the concrete and then place plastic sheeting on top of this grid, thus keeping the sun off the surface. Care should be taken that the plastic sheeting is weighted down and kept tightly stretched across the grid otherwise the surface may become marked, especially if heavy rain falls on the sheeting.

An alternative curing method is to spray the surface with a composition which forms an impervious membrane preventing evaporation.

Some spray-on membranes contain dyes which will affect the colour of the concrete. Others contain aluminium powder to reflect much of the heat from the sun.

**hardening, curing, weighted, evaporation, heat, newly, moisture**