

of the sand be above freezing and that it is free of snow or ice. Sand can be heated by piling it around a metal pipe in which a slow fire is built.

Mortar Mixes

In mild weather, a suitable mix is one part portland cement, two parts lime putty and eight or nine parts of sand (1:2:8 or 9) all by volume.

In cold weather, more cement is used to accelerate the hardening of the mortar. A 1:1:5 or 6 mix is suggested.

Mixes stronger than 1:1:5 such as 1:3 (cement:sand) are only recommended where a dense, strong mortar is required in engineering construction or for masonry construction below grade. These strong mortars should not be used, however, with masonry units which have a high drying-shrinkage, since the brick or block may be cracked during the drying out period.

A weaker mortar will accommodate the movement of those concrete blocks and concrete or sand-lime bricks which have higher shrinkage values.

Heating of Masonry Units

Bricks must be heated when the temperature falls below 32°F. Not only will this ensure that the temperature of the masonry is above freezing but will also permit the establishment of a good bond between the mortar and the brick. When the suction of the brick must be controlled, this can only be done when the brick is at a temperature above freezing. The brick must not be overheated, a temperature of 40 to 50°F. being quite adequate.

Laying Precautions

Block and brick must never be laid on a snow- or ice-covered base. The tops of unfinished walls must be covered at the end of the day's work to keep the masonry dry and free from ice or snow. Bricks must be supplied in a dry condition.