

GENERAL REQUIREMENTS

Protect masonry units, cementitious materials and sand so that they are not wetted by rain, snow or ground water.

Cover tops of masonry at all times when work is not in progress. Cover shall extend a minimum of 2 ft down both sides, and shall be securely held in place.

Units with suctions in excess of $\frac{1}{4}$ g¹ per 30 sq in. shall be sprinkled with heated water just prior to laying. Water temperature shall be above 70 F when units are above 32 F. Water temperature shall be above 120 F when temperature of units is 32 F or below.

High-early-strength portland cement and type S hydrated lime shall be used in mortars and grouts. If type I portland cement is used, increase protection period from 24 hr. to 48 hr. Use type M (1:¼:3), S (1:1½:4¼) or N (1:1:6) mortar. Keep mortar temperatures less than 120 F to avoid flash set.

Grout shall be placed in masonry at a minimum temperature of 70 F and a maximum temperature of 120 F. The grouted masonry shall be maintained above 32 F for 24 hr following placement of grout.

Construction Requirement (masonry being worked on.)

Air Temperature 40 F to 32 F:

Heat sand or mixing water to minimum of 70 F and maximum of 160 F.

Air Temperature 32 F to 25 F:

Heat sand and mixing water to minimum of 70 F and maximum of 160 F.

Air Temperature 25 F to 20 F:

Heat sand and mixing water to minimum of 70 F and maximum of 160 F. Use salamanders or other sources of heat on both sides of walls under construction. Employ windbreaks when wind is in excess of 15 mph.

Air Temperature 20 F and Below:

Heat sand and mixing water to minimum of 70 F and maximum of 160 F. Provide enclosure and auxiliary heat to maintain air temperature above 32 F. Temperature of units when laid shall be not less than 20 F.

Protection Requirements (completed masonry or sections not being worked on)

Mean Daily Air Temperature 40 F to 32 F:

Protect masonry from rain or snow for 24 hr.

Mean Daily Air Temperature 32 F to 25 F:

Completely cover masonry for 24 hr.

Mean Daily Air Temperature 25 F to 20 F:

Completely cover masonry with insulating blankets for 24 hr.

Mean Daily Air Temperature 20 F and Below:

Maintain masonry temperature above 32 F for 24 hr by enclosure and supplementary heat, by electric heating blankets, infrared heat lamps or other approved method.

COLD WEATHER MASONRY CONSTRUCTION WINTER BUILDING TECHNIQUES IN EUROPE

INTRODUCTION

The demand for structures for housing, education, manufacturing, offices, and research is real and considerable. All of the acceptable indicators agree that this demand will persist and is likely to increase in the foreseeable future.

In order to meet this challenge, the building industry must train additional craftsmen and increase its manufacturing capacity. To do this is costly in terms of time and money. This should be and, to a large extent, is being done. In the meantime, the demand for buildings grows and costs rise.

There is a way to begin to alleviate the situation immediately through the more efficient use of the existing manpower and productive capacity of the building industry. By removing the seasonal fluctuation of demand for man-

¹ See section "Preparation of Masonry Units."