INSULATION EQUIVALENTS*

Insulating material	Equivalent thickness, in.
1 in. of commercial blanket or batt insulation	1.000
1 in. of loose fill insulation of fibrous type	1.000
1 in. of insulating board	0.758
1 in. of sawdust	0.610
1 in. (nominal) of lumber	0.333
1 in. of dead-air space (vertical)	0.234
1 in. of damp sand	0.023

*The tables are calculated for the stated thicknesses of blanket-type insulation with an assumed conductivity of 0.25 Btu. per hr. per sq. ft. for a thermal gradient of 1 deg. F. per in. The values given are for still air conditions and will not be realized where air infiltration due to wind occurs. Close-packed straw under canvas may be considered a loose-fill type if wind is kept out of the straw. The insulating value of a dead-air space greater than about ½ in. thick does not change greatly with increasing thickness. Textbooks or manufacturers' test data should be consulted for more detailed data on insulations.

Accelerators

The hardening of concrete will be accelerated if small amounts of additional cement are added to the mix. Use of 1 per cent of calcium chloride by weight of the cement is often recommended in cold weather for the same purpose. An exception to this is when sulphate-resisting concrete is required; in this case, an extra bag of cement per cubic yard should be used rather than calcium chloride. The calcium chloride, when it is used, should be dissolved in a portion of the mixing water.

Salts or other chemicals must not be used as antifreeze agents. In the quantity that is safe to use, calcium chloride will only lower the freezing point by 2 or 3 degrees. Too much salt may reduce the durability of concrete, intensify the destructive reaction between the alkalis in portland cement and certain susceptible aggregates, and promote the corrosion of metal reinforcement