

APPROXIMATE HEAT LOSS THROUGH WINDOWS BY INFILTRATION

Construction	B. t. u. per hr. per ft. of crack
Poor (1/16" Sash clearance)	2.4
Good (1/32" Sash clearance)	1.2
Weather stripped sash	0.6

By this method the loss due to infiltration will be, for good construction, 1.2 times the specified temperature difference between the outside and inside, usually 70 times the total number of lineal feet of crack. As the leakage of air occurs on the windward side of the building or room and the warm air leaves on the leeward side the total lineal feet of sash and door crack existing in the one outside wall having the maximum glass and door area should be taken only, instead of the total in the room.

The following tests will be of interest in this connection.

WINDOW LEAKAGE

BY STEPHEN F. VOORHEES AND HENRY C. MEYER, JR.

(For the complete paper see A. S. H. V. E., Transactions, Vol. 22, p. 183, 1916.)

The authors conducted a series of experiments to determine the relative infiltration through various types and makes of window sash with and without weather strips. The original paper includes a complete description of the apparatus used and the method of carrying out the tests.

As pointed out by the authors, the tests cover the leakage with certain differences of pressure between the inside and outside of the window which does not simulate exactly the conditions which exist in buildings, as a pressure is built up within the building which retards the flow of air. However, the results which are here shown as curves, give a reliable comparison of the different types of sash and the approximate leakage which might be expected under various wind velocities.

Fig. 1 shows the total leakage for the various windows tested, while Fig. 2 gives the leakage through the perimeter of the sash only.

(See pages 111 and 112)

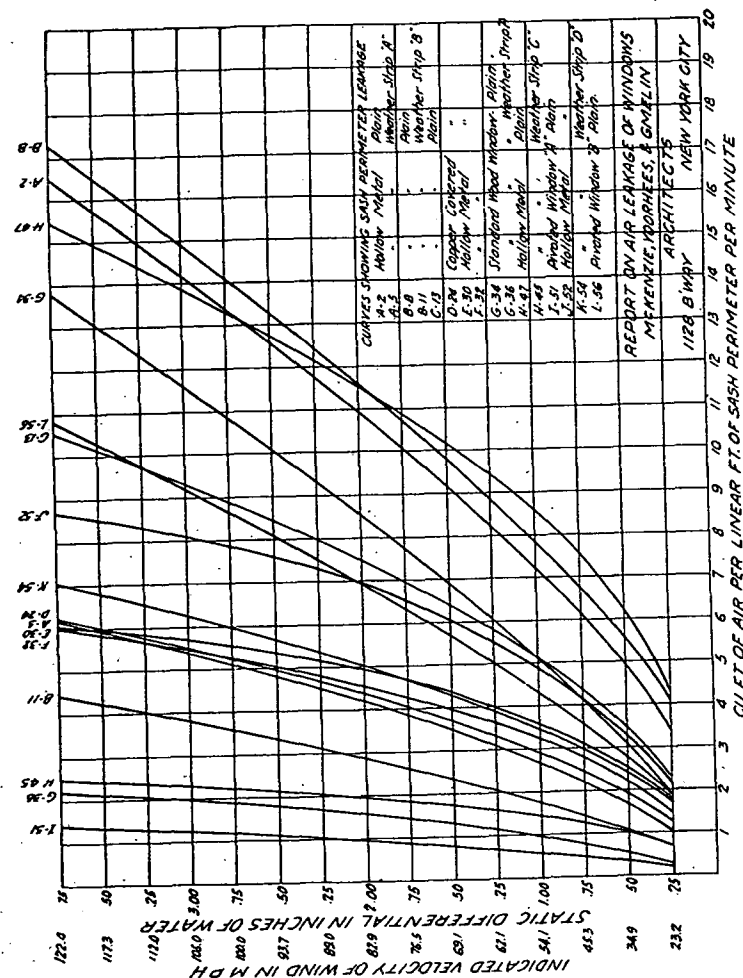


FIG. 1