

MASONRY Laboratory Website

Lab 1-Construction of Masonry Wall and Prisms

Lab

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$$Flow = \frac{D_f - D_i}{D_i} \times 100$$



a) Mortar in conical frustum b) Prior to dropping table c) After 25 drops

General description:

Workability of mortar is its ease of use measured by the flow of the mortar. The standard flow tests uses a standard conical frustum shape of mortar with a diameter of four inches. This mortar sample is placed on a flow table and dropped 25 times within 15 seconds. As the mortar is dropped, it spreads out on the flow table. The initial and final diameters of the mortar sample are used to calculate flow. Flow is defined as the increase in diameter divided by the original diameter multiplied by 100. Laboratory mixed mortar, where conditions are more controlled, should have a flow of approximately 110. In the field, mortar is usually mixed to a flow of about 130-150. As mortar sits, its flow decreases, to maintain workability, water can be added, this is called retempering. Mortar should only be retempered for the first two and a half hours, after this time, a new batch should be mixed.

[Extra Resources](#)

[Lab Worksheet](#)