

Bond Characteristics of Sand-Molded Brick Masonry

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Abstract:

The experimental results of 167 flexural bond tests of sand-modeled brick specimens are reported. The influence of condition of brick prior to laying (dry, wet & fully saturated), mortar type (portland cement-lime mortar and masonry cement mortar and surface condition (brushed and unbrushed) were studied. The effect of material incompatibility on mortar bond was investigated. The results indicate that mortar type and surface condition are the most significant parameters influencing the bond strength of sand-molded brick. Wetting the brick prior to laying did not help increase mortar bond which indicates that recommendation for minimum level of Initial Rate of Absorption (IRA) may not be justifiable.

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