

A new type of porous brick is proposed. Sawdust is initially well mixed with wet clay in order to create voids inside the brick during the firing process. The voids will enhance the total performance of the brick due to the reduction of its density and thermal conductivity and a minor reduction of its compressive stress. All these properties have been measured experimentally and good performance has been obtained. Although a minor reduction in compressive stress has been observed with increased porosity, this property has still been larger than that of the common used hollow brick. Data obtained by this work lead to a new type of effective brick having a good performance with no possibility that mortar enters inside the holes which is the case with the common used hollow bricks. The mortar has a detrimental effect on thermal properties of the wall since it has some higher thermal conductivity and density than that of brick which increases the wall overall density and thermal conductivity of the wall.