PRODUCTION OF PERLITE BASED THERMAL INSULATING MATERIAL

Hanifi Binici, Firdevs Kalaycı
Kahramanmaras Sutcu Imam University, Department of Civil Engineering
Kahramanmaras 46100, **TURKEY**

ABSTRACT

In this study, the usability of perlite as a heat insulating material has been examined. The heat insulating coefficient of producted samples have been determined. Instead of calcite as coat filling material, heat insulating coefficient has been examined by using less-weighed pumice, diatomite and vermiculite. To increase the void ratio, different chemicals are tested. Mostly the reaction of aluminum and sodium hydrochloride are made use of. Air entraining admixtures are efficient in decreasing heat insulting coefficient. By following the heat insulating coefficient of produced samples, it has been aimed to dispense. The heat insulating coefficient of perlite-based material has been found between 0,189 - 0,0618.

Keywords: Perlite; Pumice; Diatomite;Vermiculite; Aluminum Powder; NaOH.