

**ABSTRACT****Mechanical and Physical Properties of Model Refractories  
using Caribbean Regional Raw Materials****Azida Hosein**

Test pieces were fabricated from Caribbean regional raw materials: clay from Trinidad; bauxite from Guyana and alumina from Jamaica. The mechanical and some physical properties of these test pieces were investigated and discussed. For each test piece, body composition and fired temperature were the manipulated variables under investigation.

Results obtained indicated that while the clay used vitrifies significantly above 1000°C, samples with low percentages of clay (i.e. high percentages of bauxite or alumina) showed potential for use as a refractory material. These compositions consisted mainly between 55% and 90% bauxite or alumina. Also, the mechanical and physical properties exhibited by these samples were shown to be enhanced by firing at the higher temperatures.