The influence of secondary phases (illite, quartz) on the geopolymerization reaction of metakaolin has been investigated by comparing two metakaolins, one prepared from a pure kaolinite and the other from illite- and quartz-containing Algerian kaolin from the Tamazert region, respectively. Geopolymerization was achieved by mixing the metakaolins with an alkaline sodium silicate solution at room temperature and curing at 50 °C. The products were characterized by X-ray diffraction and 29Si and 27Al MAS-NMR. The results show that the secondary phases, at the concentration used in this work, do not prevent the geopolymerization reaction