

ABSTRACT

MANUFACTURING METHOD FOR A COLOURED ZIRCONIA BASED ARTICLE, IN PARTICULAR AN ORANGE/RED ARTICLE, AND A COLOURED ZIRCONIA BASED DECORATIVE ARTICLE OBTAINED IN ACCORDANCE WITH SUCH METHOD

The invention concerns a manufacturing method for an orange/red zirconia article characterised in that it includes the following steps:

- forming a mixture including a zirconia powder, 3 to 20% in weight of a stabilising agent, 0.1% to 5% in weight of powders for forming a vitreous phase, including SiO_2 , Al_2O_3 and Y_2O_3 , 0.01% to 10% in weight of a copper oxide powder(CuO);
- forming a second mixture including said first mixture and a binding agent;
- forming a green body of the article from said second mixture;
- sintering for at least thirty minutes at a temperature comprised between 1,350 and 1,500°C in ambient atmosphere, and
- annealing the desired article at a temperature comprised between 700°C and 1,350°C for a period of time comprised between 30 minutes and 20 hours in an inert or reducing atmosphere having an oxygen partial pressure comprised between 10^{-10} and 1 atmosphere, and
- polishing said sintered article.