

ABSTRACT

A coated arc welding electrode is a coated arc welding electrode in which a coating agent is applied onto a steel core wire, wherein a coating ratio of the coating agent is defined; wherein the coating agent contains, based on the total mass of the coating agent, a titanium oxide material, SiO_2 in terms of Si, Al_2O_3 in terms of Al, at least one metal carbonate selected from the group consisting of CaCO_3 , MgCO_3 and BaCO_3 in terms of CO_2 , C, Mn, and a Na compound in terms of Na and a K compound in terms of K in total, in a prescribed amount; wherein the titanium oxide material has the composition containing TiO_2 , Si, Al, Mn, Fe, Mg and Ca, in a specific amount; and wherein an oxide composed of at least one of Ti, Fe, Mn, Al and Si exists on a particle surface, and also the oxide satisfies the inequality expression: $1 \leq \text{Al} + \text{Si} \leq 10$ where Al and Si, each denotes an atomic percentage. Provided is a coated arc welding electrode which enables satisfactory welding workability, particularly satisfactory fitness at the bead end, and satisfactory bead shape.