

ABSTRACT OF THE DISCLOSURE

FLUX-CORED WIRE FOR GAS SHIELDED ARC WELDING

A flux-cored wire for gas shielded arc welding according to the present invention is formed by filling a steel casing with flux, wherein: the flux contains, by mass percentage to the total mass of the wire, titanium dioxide: 4.0 to 8.0%, alkali metal fluoride (fluorine equivalence): 0.02 to 0.40%, and PTFE (fluorine equivalence): 0.02 to 0.40%; the fluorine equivalence of alkali-earth metal fluoride is regulated to 0.01% or less by mass; and the fluorine equivalence of alkali metal fluoride and the fluorine equivalence of PTFE satisfy the following expressions;

$$\frac{(\text{fluorine equivalence of alkali metal fluoride})}{(\text{fluorine equivalence of polytetrafluoroethylene})} \leq 1, \text{ and}$$
$$\frac{(\text{fluorine equivalence of alkali metal fluoride} + 0.35)}{(\text{fluorine equivalence of polytetrafluoroethylene})} \geq 1.$$

By the configuration, diffusible hydrogen is prevented from intruding into a weld during arc welding and the wire is excellent in resistance to hygroscopicity and further shows good welding operability.

Figure 1