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New Products & Technologies

FG-50M Metal Cored Wire for Gas Shielded Arc Welding*

1 Introduction

Metal cored wire which contains, in the wire, flux that mainly consists of metal powder, gives a smaller amount of spatter compared with the solid wire, and the amount of slag generated is also smaller compared with that of the conventional wire. In view of these facts, the metal

(2) Compared with the conventional fluxed wire, the slag generation of FG-50M has become significantly smaller, because the flux composition is mainly metallic powder, thereby permitting continuous multilayer welding.

2 Material Characteristics of FG-50M

widely in the field where improvement in welding efficiency is desired.

Kawasaki Steel also has newly developed FG-50M metal cored wire for gas shielded arc welding by

3.1 Standards and Dimensions

The JIS Standard of FG-50M corresponds to YFW-C 50 DM. Standard wire sizes, packaged weights, and

3.2.1 Welding conditions

The welding conditions of FG-50M are shown in **Table 2**. For the welding machine, DC power of the thyristor control type was used, and DC reversed polarity was adopted. Further, for the shield gas, carbon dioxide was used.

3.3.1 Amount of spatter generated

Regarding the spatter generated during welding, a comparison was made between FG-50M and solid wire (YGW 11) under the conditions shown in Table 4.

Compared with the YGW 11 solid wire, the weld spatter of FG-50M has become less, as shown in **Fig. 2**. By the above, obstacles to welding efficiency such as spatter adhesion to the steel plate have been removed, and reduction in man-hours to remove the spatter has

generation between the globule and the wire is small, the [redacted]