INTERNATIONAL STANDARD

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Welding consumables — Deposition of a weld metal pad for chemical analysis

Produits consommables pour le soudage — Exécution d'un dépôt de métal fondu pour l'analyse chimique

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 6847 was prepared by the International Institute of Welding, which has been approved as an international standardizing body in the field of welding by the ISO Council.

This third edition cancels and replaces the second edition (ISO 6847:2000), of which it constitutes a minor revision.

Requests for official interpretations of any aspect of this International Standard should be directed to the ISO Central Secretariat, who will forward them to the IIW Secretariat for an official response.

Introduction

ISO 6847:1985 addressed only the deposition of a weld metal pad for chemical analysis using covered electrodes for manual arc welding. This pad preparation was expensive to execute. IIW Commission II conducted testing of several methods of weld pad preparation that were less costly to execute than that of ISO 6847:1985 and yet produced equivalent results. Further, these methods were applicable to solid wires for gas shielded welding, to tubular cored wires for arc welding with or without gas shielding, and to wires and fluxes for submerged arc welding, as well as being applicable to covered electrodes. Accordingly, this revision simplifies weld pad preparation and broadens the range of welding processes and filler metals.

Welding consumables — Deposition of a weld metal pad for chemical analysis

1 Scope

This International Standard specifies the procedure to be used for deposition of a weld metal pad for chemical analysis. This International Standard applies to deposition of a weld metal pad by use of covered electrodes, wire electrodes for gas shielded metal arc welding, tubular cored electrodes for gas shielded metal arc welding and for non-gas shielded metal arc welding, tubular cored rods for gas tungsten arc welding, and wire-flux combinations for submerged arc welding. This International Standard is applicable to welding consumables for non-alloy and fine grain steels, high strength steels, creep-resisting steels, stainless and heat-resisting steels, nickel and nickel alloys, and copper and copper alloys.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6947, *Welds — Working positions — Definitions of angles of slope and rotation*

ISO 14175, *Welding consumables — Gases and gas mixtures for fusion welding and allied processes*

3 Base metal

3.1 Type

The base metal shall have a composition similar to that of the deposited metal or be a weldable carbon manganese structural steel with a carbon content of less than 0,2 %.

3.2 Dimensions

The minimum dimensions of the base metal are given in Table 1.

3.3 Surface condition

The surface of the base metal on to which the weld metal is to be deposited shall be cleaned by grinding or other means in order to remove any rust, scale, grease, or paint.