Abstract

This document provides a means by which the information needed for the procurement of filler metals to an AWS filler metal specification can be stated clearly, concisely, and completely. It includes a method by which the heat, lot, testing, and certification requirements that are essential to so many of today's welding applications can be specified in the procurement document.
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1. Scope

This document, together with an AWS filler metal specification, is intended to describe a uniform method for providing those specific details needed for filler metal procurement which consist of the following:

(1) The filler metal classification (selected from the pertinent AWS filler metal specification)
(2) The lot classification (selected from Section 5 of this document)
(3) The level of testing schedule (selected from Table 1 and Section 6, Level of Testing, of this document)

2. Certification

By affixing the AWS specification and classification designations to the packaging, or the classification to the product, the manufacturer certifies that the product meets the requirements of that specification.

3. Manufacturer’s Quality Assurance System

3.1 The certification of the product is accomplished through a quality assurance program, by which the manufacturer verifies that the product meets the requirements of this specification. Such a program includes planning, documentation, surveillance, inspection, testing, and certification of the test results. It also includes control of the inspection and measuring equipment, as well as control of any nonconforming material. It involves auditing of the activities and provides for developing and implementing any corrective action that may become necessary.

3.2 It is the responsibility of the purchaser to review the quality assurance program of the manufacturer for conformance to the purchaser’s specific requirements.

3.3 In the case of distributors who receive electrodes in bulk and package them for distribution, or who repackage under their own label, the distributor shall maintain an adequate control system to ensure that the package contents are traceable to the original manufacturer’s records.

4. Definitions and Identification of Materials

4.1 Introduction. In production, the components of the filler metal are divided into discrete, predetermined quantities so that satisfactory tests with a sample from that quantity will establish that the entire quantity meets specification requirements. These quantities, known by such terms as heats, lots, blends, batches, and mixes, vary in size according to the manufacturer. For identification purposes, however, each manufacturer assigns a unique designation to each quantity. This designation usually consists of a series of numbers or letters, or combinations thereof, which will enable the manufacturer to determine the date and time (or shift) of manufacture, the type and source of the raw materials used, and the details of the procedures employed in producing the filler metal. This designation stays with the filler metal and can be used to identify the material later, in those cases in which identification is necessary.

4.2 Definitions. The terms dry batch, dry blend, wet mix, and heat, as they are defined and used in this document, refer to discrete quantities of the components used in producing a lot of filler metal. The definition of these terms and the considerations that must be given to the identification of the components to which they apply are as follows.

4.2.1 Dry Batch. A dry batch is the quantity of dry ingredients mixed at one time in one mixing vessel.