Filler Metal Comparison Charts

American Welding Society

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AWS FMC:2000

Filler Metal Comparison Charts

Compiled by
AWS Technical Department

Abstract

More than 80 producers and marketers of filler metals have supplied trade names of thousands of products conforming to AWS filler metal classifications. Products are tabulated by filler metal classifications within the thirty individual specifications.

American Welding Society

550 N. W. LeJeune Road, Miami, Florida 33126

Foreword

AWS FMC:2000, *Filler Metal Comparison Charts*, is the tenth revision of this popular comparison of trade names of welding electrodes and rods. A5.0-57 listed the products of sixty one companies producing material conforming to the various classifications of twelve AWS filler metal specifications. Subsequent revisions in 1959, 1966, 1971, 1978, 1980, 1983, 1986, 1989 and 1993 reflect the growth of the filler metal market.

The American Welding Society receives many inquiries concerning filler metals and their classifications. The following questions are most often asked:

1. What is the classification of Brand X?
2. Is Brand X in the same classification as Brand Y?
3. Who makes, or supplies, these brands?

To provide a single comprehensive source for this type of information, the American Welding Society publishes the *Filler Metal Comparison Charts.* These charts constitute a cross-reference between the AWS filler metal classifications and the brand name designations used by the suppliers. While the individual charts are extensive, it is recognized that they are not all-inclusive. There are filler metals available that may conform to AWS specifications, but the manufacturers chose not to supply the required information.

The "G" classification indicates that the filler metal is of a *general* classification. It is general because not all of the particular requirements specified for each of the other classifications are specified for the specific classification. The intent in establishing this classification was to provide a means by which filler metals that differ in one respect or another (chemical composition, for example) from all other classifications (meaning that the composition of the filler metal — in the case of the example—does not meet the composition specified for any of the classifications in the specification) can still be classified according to the specification. The purpose is to allow a useful filler metal—one that otherwise would have to await a revision of the specification—to be classified immediately, under the existing specification.

CONSUMERS ARE ADVISED THAT TWO FILLER METALS WITH THE SAME "G" CLASSIFICATION MAY BE SUBSTANTIALLY DIFFERENT. BRAND "B" SHOULD NOT BE USED TO REPLACE BRAND "A" WITHOUT A THOROUGH COMPARISON OF PROPERTIES OF BOTH FILLER METALS.

Information regarding brand names and their classifications was obtained from the suppliers and subsequently verified by them. Names, addresses, and telephone numbers of suppliers, where available, appear at the end of the charts.

THE INFORMATION IN THESE COMPARISON CHARTS HAS BEEN OBTAINED FROM THE MANUFACTURER OR SUPPLIER OF THE PARTICULAR FILLER METAL AT THE TIME OF ISSUE. therefore, THE AMERICAN WELDING SOCIETY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LISTINGS. FILLER METALS ARE NOT "APPROVED" BY THE AMERICAN WELDING SOCIETY. THE MANUFACTURER OR SUPPLIER SHOULD BE CONSULTED REGARDING CERTIFICATION OF COMPLIANCE TO SPECIFICATIONS AND AVAILABILITY OF EACH ITEM.

Filler metals are grouped according to AWS filler metal specification, which are listed in numerical order. The filler metals classifications are in the order in which they appear in their respective specification. The flux-electrode combination listings for AWS A5.17 and AWS A5.23 are ordered by chemical composition first, then by strength, heat treatment, etc.

Two other method of entering the charts are available. If the AWS classification designation of the desired filler metal is known, the appropriate page number can be obtained from the Index of AWS Classification designations. If the brand name is known, the page or pages on which that brand appears can be found in the Index of Brand Names.

Information concerning the manufacturing requirements, usability, and the mechanical, chemical, and other properties of a filler metal must be obtained from the respective AWS filler metal specification.[1] In cases where written assurance of specification compliance or manufacturing controls is desired (or must be documented), the user must consult the manufacturer.

Comments concerning this publication are invited, both from users and from organizations wishing to have filler metals listed. Correspondence should be addressed to the Managing Director, Technical Services, American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126.

[1] Filler metal specifications may be purchased from the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126.

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