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STANDARD

I.S. EN 756:2004

ICS 25.160.20

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WELDING CONSUMABLES - SOLID WIRES, SOLID WIRE-FLUX AND TUBULAR CORED ELECTRODE-FLUX COMBINATIONS FOR SUBMERGED ARC WELDING OF NON ALLOY AND FINE GRAIN STEELS - CLASSIFICATION

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English version

Welding consumables - Solid wires, solid wire-flux and tubular cored electrode-flux combinations for submerged arc welding of non alloy and fine grain steels - Classification

Produits consommables pour le soudage - Fils pleins, couples fils pleins-flux et fils fourrés-flux pour le soudage à l'arc sous flux des aciers non alliés et à grains fins - Classification

Schweißzusätze - Massivdrähte, Fülldrähte und Drahtpulver-Kombinationen zum Unterpulverschweißen von unlegierten Stählen und Feinkornbaustählen - Einteilung

This European Standard was approved by CEN on 2 January 2004.

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Contents

Page

Foreword 3

Introduction 4

1 Scope 5

2 Normative references 5

3 Classification 5

4 Symbols and requirements 6
4.1 Symbol for the process 6
4.2 Symbol for the tensile properties 6
4.2.1 Multi run technique 6
4.2.2 Two-run technique 6
4.3 Symbol for the impact properties of all-weld metal or two-run weldment 6
4.4 Symbol for the type of welding flux 7
4.5 Symbol for the chemical composition of solid wire electrodes or the all-weld metal deposited by a tubular cored electrode-flux combinations 7

5 Mechanical tests 9
5.1 Multi run technique 9
5.2 Two run technique 10

6 Chemical analysis 10

7 Technical delivery conditions 10

8 Designation 10

Bibliography 12

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Foreword

This document (EN 756:2004) has been prepared by Technical Committee CEN/TC 121 “Welding”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2004, and conflicting national standards shall be withdrawn at the latest by September 2004.

This document supersedes EN 756:1995.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Introduction

This standard proposes a classification in order to designate solid wire electrodes by chemical analyses and solid wire-flux combinations in terms of the yield strength, tensile strength and elongation and impact properties of the all-weld metal. Tubular cored electrode-flux combinations are designated by the chemical composition; yield strength, tensile strength and elongation and impact properties of the all-weld metal. The ratio of yield to tensile strength of weld metal is generally higher than that of parent metal. Users should note that matching weld metal yield strength to parent metal yield strength will not necessarily ensure that the weld metal tensile strength matches that of the parent material. Where the application requires matching tensile strength, therefore, selection of the consumable should be made by reference to column 3 of Table 1.

Although combinations of electrodes and fluxes supplied by individual companies may have the same grading, the individual electrodes and fluxes from different companies are not interchangeable unless verified according to this standard.

It should be noted that the mechanical properties of all-weld metal test specimens used to classify the electrode-flux combinations will vary from those obtained in production joints because of differences in welding procedures such as electrode size and parent metal chemical composition.

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