ISO 18275:2026-05 (E)

Welding consumables - Covered electrodes for manual metal arc welding of high-strength steels - Classification

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 Classification 2
4.1 General 2
4.2 Classification systems 2
4.3 Compulsory and optional sections 3
4.3.1 General 3

5 Symbols and requirements 3
5.1 Symbol for the product/process 3
5.2 Symbol for tensile properties of all-weld metal 4
5.2.1 System A 4
5.2.2 System B 4
5.3 Symbol for impact properties of all-weld metal 4
5.3.1 System A 4
5.3.2 System B 4
5.4 Symbol for chemical composition of all-weld metal 5
5.4.1 System A 5
5.4.2 System B 6
5.5 Symbol for type of electrode covering 7
5.5.1 System A 7
5.5.2 System B 7
5.6 Symbol for condition of post-weld heat treatment of all-weld metal 8
5.6.1 System A 8
5.6.2 System B 8
5.7 Symbol for electrode efficiency and type of current 8
5.7.1 System A 8
5.7.2 System B 9
5.8 Symbol for welding position 9
5.8.1 System A 9
5.8.2 System B 9
5.9 Symbol for diffusible hydrogen content of deposited metal 9
5.10 Mechanical property and composition requirements 10
5.10.1 System A 10
5.10.2 System B 10

6 Mechanical property tests 15
6.1 General 15
6.2 Preheating and interpass temperatures 15
6.2.1 System A 15
6.2.2 System B 15
6.3 Pass sequence 15
6.3.1 General 15

6.3.2 System A 16
6.3.3 System B 16

7 Chemical analysis 16
7.1 General 16
7.1.1 System A 16
7.1.2 System B 16

8 Rounding procedure 16

9 Retests 16

10 Technical delivery conditions 16

11 Examples of designation 17
11.1 General 17
11.2 Example 1 - System A 17
11.3 Example 2 - System B 17
11.4 Example 3 - System A 18
11.5 Example 4 - System B 19

Annex A (informative)Classificationsystems 20

Annex B (informative) Description of types of electrode covering -- System A 22

Annex C (informative) Description of types of electrode covering -- System B 23

Annex D (informative) Notes on diffusible hydrogen 25

Annex E (informative) Description of chemical composition symbols -- System A 26

Annex F (informative) Description of chemical composition symbols -- System B 27

Bibliography 28