ISO 26304:2025-03 (E)

Welding consumables - Solid wire electrodes, tubular cored electrodes and electrode-flux combinations for submerged arc welding of high strength steels - Classification

Contents

Page

Foreword ..... **iv**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **2**

4 Classification **2**
4.1 General 2
4.2 Classification systems 2

5 Symbols and requirements **3**
5.1 General 3
5.2 Symbol for the product or process 3
5.3 Symbols for the tensile properties of the all-weld metal deposit 4
5.3.1 Multi-run technique 4
5.3.2 Two-run technique – system B only 5
5.4 Symbol for the impact properties of the multi-run or two-run technique 5
5.5 Symbol for the type of welding flux 6
5.6 Symbol for the chemical composition of solid wire electrodes and of the all-weld metal from tubular cored electrode-flux combinations 6
5.7 Symbol for post-weld heat treatment 12
5.8 Optional symbol for hydrogen content of deposited metal 13

6 Mechanical tests **14**
6.1 Multi-run technique 14
6.1.2 Preheating and interpass temperature 14
6.1.3 Welding conditions and pass sequence 15
6.2 Two-run technique – system B only 16

7 Chemical analysis **16**

8 Rounding procedure **16**

9 Retests **17**

10 Technical delivery conditions **17**

11 Examples of designation **17**
11.1 General 17
11.2 Example 1 – Classification by yield strength and 47 J impact energy – system A 17
11.3 Example 2 – Classification by tensile strength and 27 J impact energy – system B 18
11.4 Example 3 – Classification by yield strength and 47 J impact energy – system A 18
11.5 Example 4 – Classification by tensile strength and 27 J impact energy – system B 18
11.6 Example 5 – Classification by yield strength and 47 J impact energy – system A 18
11.7 Example 6 – Classification by tensile strength and 27 J impact energy – system B 18
11.8 Example 7 – Classification by yield strength and 47 J impact energy – system A 19
11.9 Example 8 – Classification by tensile strength and 47 J impact energy – system B 19

Annex A (informative) **Possible risk of weld metal hydrogen cracking** **20**

Bibliography **21**