

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