

ISO 17632:2015-11 (E)

Welding consumables - Tubular cored electrodes for gas shielded and non-gas shielded metal arc welding of non-alloy and fine grain steels - Classification

| Contents | | Page |
|-----------------------|--|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Classification | 2 |
| 4 | Symbols and requirements | 3 |
| 4.1 | Symbol for the product/process | 3 |
| 4.2 | Symbol for tensile properties of all-weld metal or welded joint | 4 |
| 4.2.1 | Multi-run technique | 4 |
| 4.2.2 | Single-run technique | 4 |
| 4.3 | Symbol for impact properties of all-weld metal or welded joint | 5 |
| 4.4 | Symbol for chemical composition of all-weld metal | 6 |
| 4.5 | Symbol for type of electrode core or for the usability characteristics of the electrode | 9 |
| 4.6 | Symbol for shielding gas | 9 |
| 4.7 | Symbol for welding position | 12 |
| 4.8 | Symbol for hydrogen content of deposited metal | 12 |
| 4.9 | Symbol for condition of postweld heat treatment of all-weld metal | 13 |
| 5 | Mechanical tests | 13 |
| 5.1 | Multi-run technique | 13 |
| 5.1.1 | Preheating and interpass temperatures | 13 |
| 5.1.2 | Procedure requirements for welding multi-run test assemblies | 14 |
| 5.1.3 | Post-weld heat treatment (PWHT) condition | 15 |
| 5.2 | Single-run technique | 15 |
| 6 | Chemical analysis | 15 |
| 7 | Rounding procedure | 15 |
| 8 | Fillet weld test | 15 |
| 9 | Retests | 16 |
| 10 | Technical delivery conditions | 17 |
| 11 | Examples of designation | 17 |
| Annex A (informative) | Classification systems | 21 |
| Annex B (informative) | Description of types of electrode core in the classification system based upon yield strength and average impact energy of 47 J | 24 |
| Annex C (informative) | Description of types of usability characteristics in the classification system based upon tensile strength and average impact energy of 27 J | 26 |
| Annex D (informative) | Notes on hydrogen content | 29 |