

DIN EN 10216-2:2020-04 (E)

Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 2:
Non-alloy and alloy steel tubes with specified elevated temperature properties
(includes Amendment A1:2019)

| Contents | | Page |
|-------------------------|---|-------------|
| European foreword | | 4 |
| 1 | Scope | 6 |
| 2 | Normative references | 6 |
| 3 | Terms and definitions | 7 |
| 4 | Symbols | 8 |
| 5 | Classification and designation | 8 |
| 5.1 | Classification | 8 |
| 5.2 | Designation | 8 |
| 6 | Information to be supplied by the purchaser | 9 |
| 6.1 | Mandatory information | 9 |
| 6.2 | Options | 9 |
| 6.3 | Examples of an order | 10 |
| 7 | Manufacturing process | 10 |
| 7.1 | Steel making process | 10 |
| 7.2 | Tube manufacture and delivery conditions | 10 |
| 8 | Requirements | 12 |
| 8.1 | General | 12 |
| 8.2 | Chemical composition | 13 |
| 8.3 | Mechanical properties | 19 |
| 8.4 | Appearance and internal soundness | 25 |
| 8.5 | Straightness | 25 |
| 8.6 | Preparation of ends | 25 |
| 8.7 | Dimensions, masses and tolerances | 26 |
| 9 | Inspection | 32 |
| 9.1 | Types of inspection | 32 |
| 9.2 | Inspection documents | 32 |
| 9.3 | Summary of inspection and verification testing | 33 |
| 10 | Sampling | 34 |
| 10.1 | Frequency of tests | 34 |
| 10.2 | Preparation of samples and test pieces | 35 |
| 11 | Verification test methods | 36 |
| 11.1 | Chemical analysis | 36 |
| 11.2 | Tensile test | 36 |
| 11.3 | Flattening test | 36 |
| 11.4 | Ring tensile test | 37 |
| 11.5 | Drift expanding test | 38 |
| 11.6 | Ring expanding test | 39 |
| 11.7 | Impact test | 39 |

| | | |
|--|--|-----------|
| 11.8 | Leak tightness test | 40 |
| 11.9 | Dimensional inspection | 40 |
| 11.10 | Visual examination | 40 |
| 11.11 | Non-destructive testing | 40 |
| 11.12 | Material identification | 41 |
| 11.13 | Retests, sorting and reprocessing | 41 |
| 12 | Marking | 41 |
| 12.1 | Marking to be applied | 41 |
| 12.2 | Additional marking | 42 |
| 13 | Protection | 42 |
| Annex A (informative) Creep rupture strength values | | 43 |
| Annex B (informative) Technical changes from the previous edition | | 49 |
| Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of Directive 2014/68/EU aimed to be covered | | 50 |
| Bibliography | | 51 |