

# ISO 17804:2020 (E)

## Founding — Ausferritic spheroidal graphite cast irons — Classification

---

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Designation
5	Order information
6	Manufacture
7	Requirements
7.1	General
7.2	Test pieces machined from cast samples
7.2.1	General
7.2.2	Impact test
7.3	Test pieces machined from samples cut from a casting
7.4	Hardness
7.5	Graphite structure
7.6	Matrix structure
8	Sampling
8.1	General
8.2	Cast samples
8.2.1	Size of cast samples
8.2.2	Frequency and number of tests
8.2.3	Separately cast samples
8.2.4	Side-by-side cast samples
8.2.5	Cast-on samples
8.2.6	Test pieces machined from cast samples
8.3	Samples cut from a casting
8.4	Formation of test units and number of tests
8.4.1	General
8.4.2	Examples of test units
8.4.3	Number of tests per test unit
9	Test methods
9.1	Tensile test
9.2	Impact test
9.3	Hardness test
9.4	Graphite structure examination
10	Retests
10.1	Need for retesting
10.2	Test validity
10.3	Nonconforming test results
10.4	Heat treatment of samples and castings
11	Additional information

- Annex A (normative) Abrasion-resistant grades of ausferritic spheroidal graphite cast iron**
- A.1 General**
  - A.2 Requirements**
  - A.3 Sampling**
  - A.4 Hardness test**
  - A.5 Retests**
- Annex B (normative) Minimum elongation values for a test piece with original gauge length  $L_0 = 4 \times d$**
- Annex C (informative) Guidance values for Brinell hardness**
- Annex D (informative) Procedure for the determination of the hardness range**
- D.1 General**
  - D.2 Procedure**
- Annex E (informative) Guidance values for tensile strength and elongation after fracture for test pieces machined from samples cut from a casting[4]**
- Annex F (informative) Unnotched impact test**
- F.1 Purpose**
  - F.2 Requirements**
  - F.3 Sampling**
  - F.4 Test method**
  - F.5 Retests**
- Annex G (informative) Additional information on mechanical and physical properties**
- Annex H (informative) Nodularity**
- Annex I (informative) Sectioning procedure for cast samples**
- Annex J (informative) Cross-references of similar grades of ausferritic spheroidal graphite cast iron**

Page count: 34