

ISO 17804:2005-11 (E)

Founding - Ausferritic spheroidal graphite cast irons - Classification

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Designation	2
5	Order information	2
6	Manufacture	3
7	Requirements	3
7.1	General	3
7.2	Test pieces machined from separately cast and cast-on samples	3
7.3	Test pieces machined from samples cut from a casting	3
7.4	Hardness	5
7.5	Graphite structure	5
7.6	Matrix structure	5
8	Sampling	5
8.1	General	5
8.2	Separately cast samples	5
8.3	Cast-on samples	6
8.4	Samples cut from a casting	7
9	Test methods	8
9.1	Tensile test	8
9.2	Impact test, Charpy V	8
9.3	Hardness test	8
10	Retests	8
10.1	Need for retesting	8
10.2	Test validity	9
10.3	Non-conforming test results	9
10.4	Heat treatment of samples and castings	9
11	Additional information	9
Annex A (normative)	Abrasion-resistant grades of ausferritic spheroidal graphite cast iron	16
Annex B (normative)	Minimum elongation values for a test piece with original gauge length $L_0 = 4 \times d$	18
Annex C (informative)	Guidance values for Brinell hardness	19
Annex D (informative)	Procedure for the determination of the hardness range	20

Annex E (informative) Guidance values for tensile strength and elongation for test pieces machined from samples cut from a casting [1]	21
Annex F (informative) Unnotched impact test	22
Annex G (informative) Additional information on mechanical and physical properties	24
Annex H (informative) Nodularity (or spheroidal graphite rate)	26
Annex I (informative) Machinability of ausferritic spheroidal graphite cast irons	27
Annex J (informative) Cross-references of similar grades of ausferritic spheroidal graphite cast iron	29
Bibliography	30