

ISO 16112:2017-02 (E)

Compacted (vermicular) graphite cast irons - Classification

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Designation	2
5	Order information	2
6	Manufacture	2
7	Requirements	3
7.1	General	3
7.2	Test pieces machined from separately cast samples	3
7.3	Test pieces machined from side-by-side and cast-on samples	6
7.4	Test pieces machined from samples cut from a casting	8
7.5	Hardness	9
7.6	Graphite structure	9
8	Sampling	9
8.1	General	9
8.2	Cast samples	10
8.2.1	Frequency and number of tests	10
8.2.2	Separately cast samples	10
8.2.3	Side-by-side cast samples	10
8.2.4	Cast-on samples	10
8.2.5	Test pieces machined from cast samples	11
8.3	Samples cut from a casting	11
8.3.1	General	11
8.3.2	Other conditions	11
8.4	Formation of test units and number of tests	11
8.4.1	Examples of test units	11
8.4.2	Number of tests per test unit	11
9	Test methods	12
9.1	Tensile test	12
9.2	Hardness test	13
10	Retests	14
10.1	Need for retests	14
10.2	Test validity	14
10.3	Nonconforming test results	14
10.4	Heat treatment of samples and castings	14
Annex A (informative) Additional information on compacted (vermicular) graphite cast irons		15
Annex B (informative) Compacted (vermicular) graphite cast iron nodularity evaluation		18

Annex C (informative) Compacted (vermicular) graphite cast irons -- Properties and typical applications	22
grades of compacted (vermicular) graphite cast iron	23
Bibliography	24