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