ISO 185:2005-08 (E)

Grey 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 2
7.1 Mechanical properties 2
7.2 Tensile properties 2
7.2.1 Test pieces machined from separately cast samples 2
7.2.2 Test pieces machined from cast-on samples 2
7.2.3 Test pieces cut from a casting 2
7.3 Hardness properties 4
7.4 Graphite structure 6

8 Sampling 6
8.1 General 6
8.2 Tensile test 6
8.2.1 Separately cast samples 6
8.2.2 Cast-on samples 7
8.2.3 Test pieces cut from a casting 8
8.3 Hardness test 9

9 Test methods 10
9.1 Tensile test 10
9.2 Brinell hardness test 11
9.3 Graphite structure 11
9.4 Alternative test procedures 12

10 Retests 12
10.1 Need for retests 12
10.2 Test validity 12
10.3 Non-conforming test results 12

Annex A (informative) Additional information on mechanical and physical properties in addition to that given in Tables 1 and 2 13

Annex B (informative) Additional information on the relationship between hardness and tensile strength of grey cast irons 15

Annex C (informative) Additional information on the relationship between tensile strength, hardness and wall thickness of grey iron castings 18

of grey cast iron 20

Bibliography 21