

DIN EN 16079:2012-02 (E)

Founding - Compacted (vermicular) graphite cast irons

Contents		Page
Foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Designation	6
5	Order information	6
6	Manufacture	6
7	Requirements	6
7.1	General	6
7.2	Test pieces machined from cast samples	7
7.3	Test pieces machined from samples cut from a casting	7
7.4	Hardness	8
7.5	Graphite structure	8
8	Sampling	8
8.1	General	8
8.2	Cast samples	9
8.3	Samples cut from a casting	10
9	Test methods	14
9.1	Tensile test	14
9.2	Hardness test	16
9.3	Graphite structure examination	16
10	Retests	16
10.1	Need for retests	16
10.2	Test validity	16
10.3	Nonconforming test results	17
10.4	Heat treatment of samples and castings	17
11	Inspection documentation	17
Annex A (informative)	Additional information on properties and typical applications of compacted (vermicular) graphite cast irons	18
Annex B (informative)	Comparison of compacted (vermicular) graphite cast iron material designations according to EN 1560 and ISO/TR 15931[4][5]	21
Annex C (informative)	Wedge penetration test	22
Annex D (informative)	Guidance values for tensile properties measured on test pieces machined from samples cut from a casting	25

Annex E (informative) Guidance values for Brinell hardness	26
Annex F (informative) Compacted (vermicular) graphite structure evaluation	27
Annex G (normative) Sectioning procedure for cast samples	29
Bibliography	30