

DIN EN 196-1:2016-11 (E)

Methods of testing cement - Part 1: Determination of strength

Contents	Page
European foreword	4
1 Scope	5
2 Normative references	5
3 Principle	5
4 Laboratory and equipment	6
4.1 Laboratory	6
4.2 General requirements for the equipment	6
4.3 Test sieves	7
4.4 Mixer	7
4.5 Moulds	8
4.6 Jolting apparatus	11
4.7 Flexural strength testing apparatus	13
4.8 Compressive strength testing machine	14
4.9 Jig for compressive strength testing machine	15
4.10 Balance	15
4.11 Timer	15
5 Mortar constituents	16
5.1 Sand	16
5.2 Cement	17
5.3 Water	17
6 Preparation of mortar	18
6.1 Composition of mortar	18
6.2 Mixing of mortar	18
7 Preparation of test specimens	18
7.1 Size of specimens	18
7.2 Moulding of test specimens	18
8 Conditioning of test specimens	19
8.1 Handling and storage before demoulding	19
8.2 Demoulding of specimens	19
8.3 Curing of specimens in water	19
8.4 Age of specimens for strength tests	20
9 Testing procedures	20
9.1 Flexural strength	20
9.2 Compressive strength	20
10 Results	21
10.1 Flexural strength	21
10.2 Compressive strength	21
11 Validation testing of CEN Standard sand and of alternative compaction equipment	23
11.1 General	23
11.2 Validation testing of CEN Standard sand	23
11.3 Validation testing of alternative compaction equipment	26

Annex A (normative) Alternative vibration compaction equipment and procedures validated as equivalent to the reference jolting compaction equipment and procedure	29
A.1 General	29
A.2 Vibrating table, A	29
A.3 Vibrating table, B	32