DIN EN 13791:2020-02 (E)

Assessment of in-situ compressive strength in structur es and precast concrete components

Contents

Page

European foreword 3

Introduction 4

1 Scope 7

2 Normative references 7

3 Terms, definitions, symbols and abbreviations 8
3.1 Terms and definitions 8
3.2 Symbols and abbreviations 10

4 Investigation objective and test parameters 12

5 Test regions, test locations and number of tests 15
5.1 Test regions 15
5.2 Test locations 15

6 Core testing and the determination of the in situ compressive strength 17

7 Initial evaluation of the data set 18
7.1 7.2 Assessment of individual test results within a test region 19

8 Estimation of compressive strength for structural assessment of an existing structure 21
8.1 Based only on core test data 21
8.2 Based on a combination of indirect test data and core test data 22
8.3 Use of indirect testing with at least three core test data 24

9 Assessment of compressive strength class of concrete in case of doubt 25
9.1 General 25
9.2 Use of core test data 26
9.3 Indirect testing plus selected core test data 27
9.4 Screening test using a general or specific relationship with an indirect test procedure 28
9.5 Procedure where the producer has declared non-conformity of compressive strength 29

Annex A (informative) Guidance on undertaking an investigation 30

Annex B (informative) Example of a generic relationship between rebound number and compressive strength class 38

Bibliography 41

Evaluation of the test region to determine if it represents a single concrete strength class 18