



National Standards Authority of Ireland

IRISH STANDARD

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91.100.10

**PRODUCTS AND SYSTEMS FOR THE  
PROTECTION AND REPAIR OF CONCRETE  
STRUCTURES - TEST METHODS -  
DETERMINATION OF WORKABILITY -  
PART 1: TEST FOR FLOW OF THIXOTROPIC  
MORTARS**

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English version

**Products and systems for the protection and repair of concrete structures - Test methods - Determination of workability - Part 1: Test for flow of thixotropic mortars**

Produits et systèmes de protection et de réparation des structures en béton - Méthodes d'essai - Détermination de l'ouvrabilité - Partie 1: Essai d'écoulement des mortiers thixotropes

Produkte und Systeme für den Schutz und die Instandsetzung von Betontragwerken - Prüfverfahren - Bestimmung der Verarbeitbarkeit - Teil 1: Prüfung des Fließverhaltens von thixotropem Mörtel

This European Standard was approved by CEN on 5 January 2002.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This document EN 13395-1:2002 has been prepared by Technical Committee CEN/TC 104 "Concrete and related products", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2002, and conflicting national standards shall be withdrawn at the latest by December 2002.

It has been prepared by sub-committee 8 "Products and systems for the protection and repair of concrete structures" the secretariat of which is held by AFNOR.

This European Standard is one of a series dealing with products and systems for the protection and repair of concrete structures. It describes a test method for determining the workability of thixotropic repair mortars.

It is one of inter-related parts dealing with the workability of repair grouts, mortars and concretes. The other parts are:

EN 13395-2, *Products and systems for the protection and repair of concrete structures - Test methods - Determination of workability - Part 2: Test for flow of grout or mortar.*

EN 13395-3, *Products and systems for the protection and repair of concrete structures - Test methods - Determination of workability - Part 3: Test for flow of repair concrete.*

EN 13395-4, *Products and systems for the protection and repair of concrete structures - Test methods - Determination of workability - Part 4: Application of repair mortar overhead.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## EN 13395-1:2002 (E)

### 1 Scope

This European Standard specifies a method for determining the workability (or consistence) of trowel-grade hydraulic cement mortars CC, polymer modified hydraulic cement mortars PCC and polymer bound mortars PC for the protection and repair of concrete, as defined in EN 1504-1.

### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 196-1, *Methods of testing cement - Part 1: Determination of strength*.

EN 1015-3:1998, *Methods of test for mortar for masonry – Part 3: Determination of consistence of fresh mortar (by flow table)*.

EN 1504-1, *Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity - Part 1: Definitions*.

prEN 1504-3<sup>1</sup>, *Products and systems for the protection and repair of concrete structures - Part 3: Structural and non-structural repair*.

### 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions contained in EN 1504-1 and prEN 1504-3<sup>1</sup> apply.

### 4 Principle

The workability of the thixotropic mortar is measured by the spread of a defined test sample when placed on a flow table, with the spread being achieved by a set number of jolts, whereby the platen of the table is raised slightly and then dropped back to the resting position. The method is based on EN 1015-3.

NOTE Trowel-grade repair products are normally mortars, applied by hand to horizontal, vertical or overhead surfaces using appropriate compaction and levelling tools.

### 5 Equipment

**5.1 Mortar mixer**, in accordance with EN 196-1, or **concrete mixer**, (forced action pan mixer).

**5.2 Tamper** consisting of a round, non-absorptive rod,  $(40 \pm 1)$  mm in diameter and with a length of  $(200 \pm 10)$  mm. The tamping face shall be a flat, square end. The mass of the tamper shall be  $(0,250 \pm 0,015)$  kg.

**5.3 Flow table and truncated conical mould** as described in annex A of EN 1015-3:1998 and shown in Figure 1.

**5.4 Calipers** capable of measuring diameters up to 300 mm with an accuracy of 1 mm.

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<sup>1</sup> Under preparation.

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