



# SLOVENSKI STANDARD

## SIST EN 1170-1:2001

01-april-2001

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### Montažni betonski izdelki - Preskusna metoda za steklocementni kompozit - 1. del: Merjenje konsistence matrice z metodo poseda

Precast concrete products - Test method for glass-fibre reinforced cement - Part 1:  
Measuring the consistency of the matrix "Slump test" method

Vorgefertigte Betonerzeugnisse - Prüfverfahren für Glasfaserbeton - Teil 1: Bestimmung  
der Konsistenz der Matrix-Setzversuch

Produits préfabriqués en béton - Méthode d'essai des composites ciment-verre - Partie  
1: Mesure de la consistance de la matrice, méthode dite par étalement

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Ta slovenski standard je istoveten z: EN 1170-1:1997

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#### ICS:

91.100.30	Beton in betonski izdelki	Concrete and concrete products
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**en**

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EUROPEAN STANDARD

EN 1170-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1997

ICS 91.100.30

Descriptors: concrete products, mortars: material, prefabricated elements, composite materials, cements, glass, quality control, batching, water cement ratio, conformity tests, measurements, plastic properties

English version

## Precast concrete products - Test method for glass-fibre reinforced cement - Part 1: Measuring the consistency of the matrix "Slump test" method

Produits préfabriqués en béton - Méthode d'essai des composites ciment-verre - Partie 1: Mesure de la consistance de la matrice, méthode dite "par étalement"

Vorgefertigte Betonerzeugnisse - Prüfverfahren für Glasfaserbeton - Teil 1: Bestimmung der Konsistenz der Matrix-Setzversuch

This European Standard was approved by CEN on 29 October 1997.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

[SIST EN 1170-1:2001](https://standards.iteh.ai/catalog/standards/sist/b3f7fd4-09c6-4615-9a47-)

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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**Foreword**

This European Standard has been prepared by Technical Committee CEN/TC 229 "Precast concrete products", the secretariat of which is held by AFNOR.

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 May 1998, and conflicting national standards shall be withdrawn at the latest by May 1998.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This European Standard specifies a method of test making it possible to check the workability of the mixture and the conformity of the water/cement ratio (suitability for pumping and compaction) in glassfibre reinforced cement.

## 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.

EN 1170-2                      Precast concrete products - Test method for glass-fibre reinforced cement - Part 2: Measuring the fibre content in fresh GRC - "Wash out test" method

## 3 Definition and abbreviation

### 3.1 Definition

For the purposes of this standard the following definition applies :

**matrix** : Composition of the glassfibre reinforced cement without the fibres. It is made up of the mixture of sand, cement, water and any admixtures and additives.

### 3.2 Abbreviation

**GRC** : Glassfibre reinforced cement.

## 4 Apparatus

The apparatus comprises :

- a plastic or metallic tube with a smooth internal surface,  $(55 \pm 0,5)$  mm high with an internal diameter of  $(57 \pm 0,5)$  mm and an external diameter of not less than 65 mm ;
- a flat plate of smooth, easily-cleaned material approximately  $(300 \times 300)$  mm on which are engraved, with a tolerance of  $\pm 0,5$  mm, nine numbered concentric circles, the diameters of which are given in table 1 ;
- a trowel.

**Table 1 : Diameters and numbering of the circles**

Number of circle	0	1	2	3	4	5	6	7	8
Diameter of circle (mm)	65	85	105	125	145	165	185	205	225

## 5 Procedure

Put the plate on a horizontal support.

Wipe the plate and the inside of the tube with a damp cloth.

Put the tube on the plate, centering it in the engraved circle no. 0.

Take about 200 cm<sup>3</sup> of the matrix ready to be used (for example from the pump hopper in case of spray).

Fill the tube with matrix wait a few seconds for the air bubbles to escape, and level the surface with the trowel.

Lift the tube slowly and vertically. The matrix will spread out onto the plate.

Wait approximately 30 s and read the number of the circle reached by the spreading matrix. If necessary, round the result to the nearest circle.

Record the result in the test record book (an example of a record sheet is given in EN 1170-2).

Clean and dry the apparatus.

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## 6 Interpreting the result

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The optimum value is determined according to the method of manufacture and type of product to be produced. It is defined during the establishment of the mix design.

If the result obtained does not comply with the optimum value defined, carry out a second test to validate the result before modifying the composition (e.g. change the water quantity).