SLOVENSKI STANDARD
SIST EN 15167-2:2006

01-december-2006

Grobozrnata plavžna žlindra za uporabo v betonu, malti in injekcijski malti – 2. del. Ovrednotenje skladnosti

Ground granulated blast furnace slag for use in concrete, mortar and grout - Part 2: Conformity evaluation

Hüttensandmehl zur Verwendung in Beton, Mörtel und Einpressmörtel - Teil 2: Konformitätsbewertung

Laitier granulé de haut-fourneau moulu pour utilisation dans le béton, mortier et coulis - Partie 2: Evaluation de la conformité

Ta slovenski standard je istoveten z: **EN 15167-2:2006**

ICS:

91.100.15	Mineralni materiali in izdelki	Mineral materials and products

SIST EN 15167-2:2006 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15167-2

August 2006

ICS 91.100.15

English Version

Ground granulated blast furnace slag for use in concrete, mortar and grout - Part 2: Conformity evaluation

Laitier granulé de haut-fourneau moulu pour utilisation dans le béton, mortier et coulis - Partie 2: Evaluation de la conformité

Hüttensandmehl zur Verwendung in Beton, Mörtel und Einpressmörtel - Teil 2: Konformitätsbewertung

This European Standard was approved by CEN on 26 June 2006.

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.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN 15167-2:2006: E

Contents

Page

Foreword

This document (EN 15167-2:2006) 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 February 2007, and conflicting national standards shall be withdrawn at the latest by May 2008.

The standard EN 15167, is composed of two parts:

— Part 1: Definitions, specifications and conformity criteria

— Part 2: Conformity evaluation

The preparatory work was carried out by WG15 of CEN/TC 104 since November 2003 in which the following countries participated: Austria, Belgium, Czech Republic, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, Spain, Sweden, Switzerland and the United Kingdom.

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

1 Scope

This European Standard specifies the scheme for the evaluation of conformity of ground granulated blastfurnace slag according to EN 15167-1.

The European Standard provides technical rules for the production control by the manufacturer, including autocontrol testing of samples. It also provides rules for actions to be followed in the event of non-conformity, the procedure for the certification of conformity and requirements for dispatching centres.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

EN 196-7, *Methods of testing cement — Methods of taking and preparing samples of cement*

EN 15167-1:2006, *Ground granulated blast furnace slag for use in concrete, mortar and grout — Part 1: Definitions, specifications and conformity criteria*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
autocontrol
continual statistical quality control of the ground granulated blastfurnace slag based on the testing of samples taken by the manufacturer or their agent at point(s) of release from the ground granulated blastfurnace slag factory

[EN 15167-1:2006]

NOTE This testing corresponds also to the “further testing of samples” mentioned in Annex III Section 2 point (i) of the Construction Products Directive 89/106/EEC.

3.2
certificate of conformity
document issued under the rules of a certain scheme for the evaluation of conformity indicating that adequate confidence is provided that ground granulated blastfurnace slag is in conformity with EN 15167-1

3.3
certification
procedure by which a third party gives written assurance that a product, process or service conforms to specified requirements

[EN 45020:1998]

3.4
certification body
impartial body, governmental or non-governmental, possessing the necessary competence and responsibility to carry out conformity certification according to given rules of procedure and management

3.5
certified ground granulated blastfurnace slag
ground granulated blastfurnace slag for which a certificate of conformity has been issued

NOTE A single factory can manufacture more than one certified ground granulated blastfurnace slag, where each is subject to separate autocontrol and declaration of conformity.

3.6
confirmation autocontrol testing
continual testing carried out by an intermediary which consists of testing of samples taken by the intermediary at the point(s) of release from the dispatching centre

3.7
control period
period of manufacture and dispatch identified for the evaluation of the autocontrol test results

[EN 15167-1:2006]

3.8
conformity mark
protected mark applied on the basis of the certificate of conformity (see 3.2)

3.9
depot
bulk ground granulated blastfurnace slag handling facility (not located at the factory) used for the dispatch of ground granulated blastfurnace slag (whether in bulk or bagged) after transfer or storage where the manufacturer has full responsibility for all aspects of the quality of the ground granulated blastfurnace slag

3.10
dispatching centre
bulk ground granulated blastfurnace slag handling facility (not located at the factory) used for the dispatch of ground granulated blastfurnace slag after transfer or storage where an intermediary has full responsibility for all aspects of the quality of the ground granulated blastfurnace slag

3.11
existing factory
factory which is already producing ground granulated blastfurnace slag certified under this scheme

3.12
factory production control
permanent internal control of ground granulated blastfurnace slag production exercised by the manufacturer consisting of internal quality control and autocontrol testing

3.13
factory
facility used by a manufacturer for the production of ground granulated blastfurnace slag using equipment which is suitable for continuous mass production of ground granulated blastfurnace slag, in particular equipment for adequate grinding and homogenisation and the necessary silo capacity for the storage and dispatch of each ground granulated blastfurnace slag produced. This equipment and the production control applied allow the control of production with sufficient accuracy to ensure that the requirements of EN 15167-1 are met

3.14
initial period
immediate period after the first issuing of the certificate of conformity for a ground granulated blastfurnace slag

3.15
inspection body
impartial body having the organization, staffing, competence and integrity to perform according to specified criteria functions such as assessing, recommending for acceptance and subsequent audit of manufacturers' quality control operations, and selection and evaluation of products on site or in factories or elsewhere, according to specific criteria

[Construction Products Directive, 89/106/EEC]

3.16
intermediary
natural or legal person who takes from the manufacturer ground granulated blastfurnace slag certified according to EN 15167-2 and bearing the conformity mark, who undertakes full responsibility for maintaining in a dispatching centre all aspects of the quality of the ground granulated blastfurnace slag and who supplies the ground granulated blastfurnace slag onwards to a further natural or legal person

3.17
manufacturer
operator of the factory

3.18
new factory
factory which is not already producing ground granulated blastfurnace slag certified under this scheme

3.19
quality control
operational techniques and activities that are used to fulfil requirements for quality

3.20
single result limit value
value of a mechanical, physical or chemical property which – for any single test result – in the case of an upper limit is not to be exceeded or in the case of a lower limit is, as a minimum, to be reached

[EN 15167-1:2006]

3.21
specified characteristic value
characteristic value of a chemical or physical property which in the case of an upper limit is not to be exceeded or in the case of a lower limit is, as a minimum, to be reached

[EN 15167-1:2006]

3.22
spot sample
sample taken at the same time and from one and the same place, relating to the intended tests. It can be obtained by combining one or more immediately consecutive increments (see EN 196-7)

[EN 15167-1:2006]

3.23
test
technical operation that consists of the determination of a characteristic of a product according to a specified procedure

[EN 45020:1998]

3.24
testing laboratory
laboratory which measures, examines, tests, calibrates or otherwise determines the characteristics or performance of materials or products

[Construction Products Directive, 89/106/EEC]

3.25
test method
specified technical procedure for performing a test

[EN 45020:1998]

3.26
works' quality manual
document providing information on the production control that a manufacturer applies at a particular factory to ensure conformity of the ground granulated blastfurnace slag with the requirements of EN 15167-1

4 Tasks for the manufacturer

4.1 Factory production control

4.1.1 Concept

Production control means the permanent internal control of ground granulated blastfurnace slag production exercised by the manufacturer and consists of internal quality control (see 4.2) and autocontrol testing[1)] of samples of ground granulated blastfurnace slag taken at the point of release (see 4.3).

NOTE The requirements of EN 15167-2 as regards the production control take account of those clauses of EN ISO 9001 which are relevant to the production, process control and testing of ground granulated blastfurnace slag.

4.1.2 Works' quality manual

The manufacturer's documentation and procedures for the production control shall be described in a Works' quality manual, which shall adequately describe, among other things:

a) the quality aims and the organisational structure, responsibilities and powers of the responsible staff with regard to product quality and the means to monitor the achievement of the required product quality and the effective operation of the internal quality control (see 4.1.3);

---

1) This testing corresponds also to the "further testing of samples" mentioned in Annex III Section 2 point (i) of the Construction Products Directive 89/106/EEC.

b) the production and quality control techniques, processes and systematic actions that will be used (see 4.2.1, 4.2.3 and 4.3.2);

c) the inspections and tests that will be carried out before, during and after production, and the frequency with which they will be carried out (see 4.2.2, 4.3.1 and 4.3.3).

The Works' quality manual prepared by the manufacturer for each factory shall include an adequate system of documentation (see 4.1.4 and 4.3.4).

The Works' quality manual shall address and document the procedures operated to ensure that the ground granulated blastfurnace slag conforms to the technical specifications. The manual may reference associated documents which provide further details of the autocontrol testing of samples and the internal quality control. For the purpose of this scheme, the term Works' quality manual shall be considered to include these associated documents.

NOTE In the case of an existing quality management system according to EN ISO 9001, the certification body may examine if the corresponding quality manual meets all the requirements of EN 15167-1 which are relevant to the production control of ground granulated blastfurnace slag. Provided all the requirements are included, this quality manual may also be applied for product certification.

The Works' quality manual shall include a statement by the management of the manufacturer defining its quality policy, objectives and commitments to the attainment of product quality.

4.1.3 Management systems

4.1.3.1 Management representative

The manufacturer shall appoint a management representative who, irrespective of other responsibilities, shall have defined authority and responsibility for ensuring that the requirements of this European Standard for the evaluation of conformity are implemented and maintained.

4.1.3.2 Internal audits and management review

In order to ensure the continuing suitability and effectiveness of the Work's quality manual to meet the requirements of EN 15167-1, the manufacturer shall perform at least once per year:

a) internal audits covering the scope of Clause 4 and 6.1;

b) management review of the production control, taking into account records of the internal audits.

4.1.3.3 Training

The Works' quality manual shall describe the measures taken to ensure that all the personnel involved in operations that can affect internal quality control and product quality have appropriate experience or training. Appropriate records shall be retained.

4.1.4 System of documentation

4.1.4.1 Document control

The management representative of the manufacturer shall be responsible for the control of all documents and data related to the production control and to this scheme for the evaluation of conformity.

This control shall ensure that the appropriate issues of all documents are available at essential locations, that obsolete documents are withdrawn and that changes or modifications to any document are effectively introduced.