

**Hydraulically bound mixtures - Specifications - Part 2:
Slag bound granular mixtures**

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NATIONAL FOREWORD

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English Version

Hydraulically bound mixtures - Specifications - Part 2: Slag bound granular mixtures

Mélanges traités aux liants hydrauliques - Spécifications -
Partie 2: Mélanges granulaires traités au laitier

Hydraulisch gebundene Gemische - Anforderungen - Teil 2:
Schlackengebundene Gemische

This European Standard was approved by CEN on 1 March 2013.

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Contents

Page

Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Symbols and abbreviated terms	7
5 Constituents	7
5.1 Aggregates	7
5.2 Granulated blast furnace slag	8
5.3 Partially ground granulated blast furnace slag	8
5.4 Ground granulated blast furnace slag	8
5.5 Water	8
5.6 Activators	8
6 Slag bound granular mixtures	8
6.1 Types	8
6.2 Slag bound granular mixture 1	8
6.3 Slag bound granular mixture 2	9
6.4 Slag bound granular mixture 3	9
6.5 Slag bound granular mixture 4	10
6.6 Slag bound granular mixture 5	10
6.7 Examples of slag bound granular mixture	10
6.8 Water content of mixtures	10
6.9 Proportioning of the constituents, grading and dry density for mixtures	10
6.10 Other requirements for fresh mixtures	11
6.10.1 Compacity	11
6.10.2 Immediate bearing index	11
6.10.3 Workability period	11
7 Laboratory mechanical performance classification	11
7.1 General	11
7.2 Classification by California bearing ratio	12
7.3 Classification by compressive strength	12
7.4 Classification by R_t , E	14
7.4.1 General	14
7.4.2 Method by direct tensile testing	14
7.4.3 Method by indirect tensile testing	14
7.4.4 Method by indirect tensile and compression testing	14
8 Other requirements for the mixture	15
8.1 Strength after immersion in water	15
8.2 Other characteristics	15
9 Production control	15
10 Designation and description	15
10.1 Designation	15
10.2 Description	16
11 Marking and labelling	16
12 Figures	17
Annex A (normative) Hydraulic activity of granulated and partially ground granulated blast furnace slag	24
A.1 Hydraulic activity	24

A.2	C.A product	24
A.3	Alpha coefficient of granulated blast furnace slag	24
A.4	Fines content of partially ground granulated blast furnace slag	25
Annex B	(informative) Examples of slag bound granular mixtures	26
Annex C	(normative) Compacity of a slag bound granular mixture 2	27
Annex D	(normative) CBR value of slag bound granular mixtures	28
D.1	Sampling and preparation of the test samples	28
D.2	Specimen manufacture and curing	28
D.3	Calculation and expression of results	28
Annex E	(informative) Production control for slag bound granular mixtures	29
E.1	General	29
E.2	Quality manual	29
E.3	Organisation	29
E.3.1	Responsibility and authority	29
E.3.2	Management representative	29
E.3.3	Internal audits	29
E.3.4	Management review	30
E.3.5	Sub-contract services	30
E.3.6	Records	30
E.3.7	Training	30
E.4	Control procedures	30
E.4.1	Production management	30
E.4.2	Composition of the mixture	31
E.4.3	Constituents	31
E.4.4	Process control	31
E.4.5	Inspection, calibration and control of process equipment	31
E.4.6	Handling and delivery	32
E.5	Inspection and testing of constituents and mixtures during production	32
E.5.1	General	32
E.5.2	Characteristics that require control during production	32
E.5.3	Frequency of sampling the mixture	33
E.6	Inspection and testing equipment	33
E.6.1	General	33
E.6.2	Measuring and testing equipment	33
E.6.3	Measuring and testing equipment in the process	33
E.6.4	Measuring and testing equipment in laboratory	33
E.7	Non-conformity	34
E.7.1	General	34
E.7.2	Non-conformity of constituents	34
E.7.3	Non-conformity of the mixture	34
Bibliography		35

Foreword

This document (EN 14227-2:2013) has been prepared by Technical Committee CEN/TC 227 "Road materials", 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 2013, and conflicting national standards shall be withdrawn at the latest by November 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14227-2:2004.

Compared with EN 14227-2:2004, the following changes have been made:

- Changing of the title;
- Revision of Clause 3 "Terms and definitions";
- Revision of Clause 4 "Symbols and abbreviated terms";
- Revision of Clause 5 "Constituents".

This standard is one of a series of parts for EN 14227, *Hydraulically bound mixtures — Specifications*:

- *Part 1: Cement bound granular mixtures*
- *Part 2: Slag bound granular mixtures*
- *Part 3: Fly ash bound granular mixtures*
- *Part 4: Fly ash for hydraulically bound mixtures*
- *Part 5: Hydraulic road binder bound granular mixtures*
- *Part 10: Soil treated by cement*
- *Part 11: Soil treated by lime*
- *Part 12: Soil treated by slag*
- *Part 13: Soil treated by hydraulic road binder*
- *Part 14: Soil treated by fly ash*

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1 Scope

This European Standard specifies slag bound granular mixtures for, roads, airfields, and other trafficked areas, and specifies the requirements for their constituents, composition and laboratory performance classification. In this European Standard slag refers to slag from the iron and steel industry.

2 Normative references

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

EN 459-1, *Building lime — Part 1: Definitions, specifications and conformity criteria*

EN 933-1, *Tests for geometrical properties of aggregates — Part 1: Determination of particle size distribution — Sieving method*

EN 1097-6:2000, *Tests for mechanical and physical properties of aggregates — Part 6: Determination of particle density and water absorption*

EN 1097-7, *Tests for mechanical and physical properties of aggregates — Part 7: Determination of the particle density of filler — Pyknometer method*

EN 13242, *Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction*

EN 13286-1, *Unbound and hydraulically bound mixtures — Part 1: Test methods for laboratory reference density and water content — Introduction, general requirements and sampling*

EN 13286-2, *Unbound and hydraulically bound mixtures — Part 2: Test methods for laboratory reference density and water content — Proctor compaction*

EN 13286-3, *Unbound and hydraulically bound mixtures — Part 3: Test methods for laboratory reference density and water content — Vibrocompression with controlled parameters*

EN 13286-4, *Unbound and hydraulically bound mixtures — Part 4: Test methods for laboratory reference density and water content — Vibrating hammer*

EN 13286-5, *Unbound and hydraulically bound mixtures — Part 5: Test methods for laboratory reference density and water content — Vibrating table*

EN 13286-40, *Unbound and hydraulically bound mixtures — Part 40: Test method for the determination of the direct tensile strength of hydraulically bound mixtures*

EN 13286-41, *Unbound and hydraulically bound mixtures — Part 41: Test method for the determination of the compressive strength of hydraulically bound mixtures*

EN 13286-42, *Unbound and hydraulically bound mixtures — Part 42: Test method for the determination of the indirect tensile strength of hydraulically bound mixtures*

EN 13286-43, *Unbound and hydraulically bound mixtures — Part 43: Test method for the determination of the modulus of elasticity of hydraulically bound mixtures*

EN 13286-44, *Unbound and hydraulically bound mixtures — Part 44: Test method for the determination of the alpha coefficient of vitrified blast furnace slag*

EN 13286-45, *Unbound and hydraulically bound mixtures — Part 45: Test method for the determination of the workability period of hydraulically bound mixtures*

EN 13286-47, *Unbound and hydraulically bound mixtures — Part 47: Test method for the determination of California bearing ratio, immediate bearing index and linear swelling*

EN 13286-50, *Unbound and hydraulically bound mixtures — Part 50: Method for the manufacture of test specimens of hydraulically bound mixtures using Proctor equipment or vibrating table compaction*

EN 13286-51, *Unbound and hydraulically bound mixtures — Part 51: Method for the manufacture of test specimens of hydraulically bound mixtures using vibrating hammer compaction*

EN 13286-52, *Unbound and hydraulically bound mixtures — Part 52: Method for the manufacture of test specimens of hydraulically bound mixtures using vibrocompression*

EN 13286-53, *Unbound and hydraulically bound mixtures — Part 53: Methods for the manufacture of test specimens of hydraulically bound mixtures using axial compression*

EN 15167-1, *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

hydraulically bound mixture

mixture which sets and hardens by hydraulic reaction

3.2

slag bound granular mixture

hydraulically bound granular mixture whose performance relies on blast-furnace and or steel slag

Note 1 to entry: The mixture may include an activator.

3.3

air-cooled blast furnace slag

aggregate made mainly of crystalline silicates and aluminosilicates of calcium and magnesium, obtained by slow air cooling of molten blast furnace slag

Note 1 to entry: The cooling process may be assisted by the controlled application of water. Air-cooled blast furnace slag hardens by hydraulic reaction and carbonation.

3.4

air-cooled steel slag

aggregate made mainly of crystalline calcium silicates and calcium ferrites comprising CaO, SiO₂, MgO and iron oxides, obtained by slow air cooling of molten steel slag

Note 1 to entry: The cooling process may be assisted by the controlled application of water. Air-cooled steel slag hardens mainly by carbonatic reactions.

3.5

granulated blast furnace slag

vitrified sandy material made up mainly of CaO, SiO₂, Al₂O₃ and MgO, produced generally by rapid water quenching of molten blast furnace slag

Note 1 to entry: Granulated blast furnace slag hardens by hydraulic reaction.

Note 2 to entry: Pelletised and dry granulated blast-furnace slag may have similar hydraulic properties.