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BS EN 14227-1:2013



# **BSI Standards Publication**

# Hydraulically bound mixturesSpecifications

Part 1: Cement bound granular mixtures

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BS EN 14227-1:2013 BRITISH STANDARD

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This British Standard is the UK implementation of EN 14227-1:2013. It supersedes BS EN 14227-1:2004 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/510/4, Cementitious bound materials, unbound granular materials, waste materials and marginal materials.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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### **English Version**

# Hydraulically bound mixtures - Specifications - Part 1: Cement bound granular mixtures

Mélanges traités aux liants hydrauliques - Spécifications -Partie 1: Mélanges granulaires traités au ciment Hydraulisch gebundene Gemische - Anforderungen - Teil 1: Zementgebundene Gemische

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

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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### **Foreword**

This document (EN 14227-1:2013) 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of an identical text or by endorsement, at the latest by November 2013, and conflicting national standards shall be withdrawn at the latest by November 2013.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 14227-1:2004.

Compared with EN 14227-1:2004, the following changes have been made:

- Changing of the title;
- Revision of Clause 6 "Hydraulic road binder bound granular mixture";
- Revision of Clause 7 "Laboratory mechanical performance classification";
- Inclusion of Clause 8 "Other requirements for the mixture".

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

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

BS EN 14227-1:2013 **EN 14227-1:2013 (E)** 

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### 1 Scope

This European Standard specifies cement bound granular mixtures for roads, airfields and other trafficked areas and specifies the requirements for their constituents, composition and laboratory performance classification.

### 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 197-1, Cement — Part 1: Composition, specifications and conformity criteria for common cements

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 13286-45, 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