SLOVENSKI STANDARD
kSIST FprEN 15599-1:2010

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Toplotnoizolacijski proizvodi za opremo stavb in industrijske inštalacije - Proizvodi iz ekspandiranega perlita (EP), oblikovani na mestu vgradnje - 1. del: Specifikacija za vezane in razsute proizvode pred vgradnjo

Thermal insulation products for building equipment and industrial installations - In-situ thermal insulation formed from expanded perlite (EP) products - Part 1: Specification for bonded and loose-fill products before installation

Wärmedämmstoffe für die Haustechnik und für betriebstechnische Anlagen - An der Verwendungsstelle hergestelle Wärmedämmung mit Produkten aus expandiertem Perlite (EP) - Teil 1: Spezifikation für gebundene und Schüttprodukte vor dem Einbau

Produits isolants thermiques pour l'équipement du bâtiment et les installations industrielles - Isolation thermique formée en place à base de granulats légers de Perlite expansée (EP) - Partie 1: Spécification de produits liés et en vrac avant mise en oeuvre

Ta slovenski standard je istoveten z: **FprEN 15599-1**

ICS:

91.100.60	Materiali za toplotno in zvoļ no izolacijo	Thermal and sound insulating materials

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EUROPEAN STANDARD

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FINAL DRAFT
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English Version

Thermal insulation products for building equipment and industrial installations - In-situ thermal insulation formed from expanded perlite (EP) products - Part 1: Specification for bonded and loose-fill products before installation

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If this draft becomes a European Standard, 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.

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

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Foreword

This document (FprEN 15599-1:2009) has been prepared by Technical Committee CEN/TC 88 “Thermal insulating materials and products”, the secretariat of which is held by DIN.

This document is currently submitted to the Unique Acceptance Procedure.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directive(s), see informative Annex ZA, which is an integral part of this document.

This European Standard consists of two parts which form a package. The first part, which is the harmonised part satisfying the mandate, the CPD and is the basis for the CE marking, covers the products, which are placed on the market. The second part, which is the non-harmonised part, covers the specification for the installed products.

This document contains five Annexes:

Annex A (normative) - Factory production control

Annex B (normative) - Preparation of test specimens to measure thermal conductivity

Annex C (normative) - Special conditions to be used for the determination of organic content

Annex D (normative) - Determination of maximum service temperature

Annex ZA (informative) - Clauses of this European Standard addressing the provisions of the EU Construction Products Directive

This European Standard is one of a series for polyurethane/polyisocyanurate, expanded perlite and exfoliated vermiculite in-situ formed insulation products used in building equipment and industrial installations, but this standard may be used in other areas where appropriate. EN 14316-1 covers the use of expanded perlite in buildings.

The reduction in energy used and emissions produced during the installed life of insulation products exceeds by far the energy used and emissions made during the production and disposal processes.

1 Scope

This European Standard specifies the requirements for expanded perlite products which are used for the thermal insulation of building equipment and industrial installations with an operating temperature in the range of approximately -270 ºC to +650 ºC.

This European Standard specifies the requirements for the four types of expanded perlite products Perlite Aggregate (EPA), Coated Perlite (EPC), Hydrophobic Perlite (EPH) and Premixed Perlite (EPM), containing less than 1 % by mass organic material as determined by Annex C.

This European Standard is a specification for the insulation products before installation.

This European Standard describes the product characteristics and includes procedures for testing, evaluation of conformity, marking and labelling.

This European Standard does not specify the required level of a given property to be achieved by a product to demonstrate fitness for purpose in a particular application. The levels required for a given application are to be found in regulations or non-conflicting standards.

This European Standard does not cover factory made insulation products of formed shapes and boards made with expanded perlite, and does not cover products intended to be used for the insulation of buildings.

The products covered by this standard are not intended to be used primarily for airborne sound insulation or sound absorption applications although they may improve the performance of the installation in these respects when installed for their primary insulation intended use.

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 932-1, *Tests for general properties of aggregates — Part 1: Methods for sampling*

EN 932-2, *Tests for general properties of aggregates — Part 2: Methods for reducing laboratory samples*

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

EN 993-14, *Methods of test for dense shaped refractory products — Part 14: Determination of thermal conductivity by the hot-wire (cross-array) method*

EN 1097-3, *Tests for mechanical and physical properties of aggregates — Part 3: Determination of loose bulk density and voids*

EN 12086, *Thermal insulating products for building applications — Determination of water vapour transmission properties*

EN 12667, *Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Products of high and medium thermal resistance*

EN 13055-1, *Lightweight aggregates — Part 1: Lightweight aggregates for concrete, mortar and grout*

EN 13055-2, *Lightweight aggregates — Part 2: Lightweight aggregates for bituminous mixtures and surface treatments and for unbound and bound applications*

EN 13172, *Thermal insulating products — Evaluation of conformity*

EN 13820, *Thermal insulating materials for building applications — Determination of organic content*

EN 14706, *Thermal insulating products for building equipment and industrial installations — Determination of maximum service temperature*

EN ISO 13787, *Thermal insulation products for building equipment and industrial installations — Determination of declared thermal conductivity (ISO 13787:2003)*

3 Terms and definitions, Symbols and Abbreviations

3.1 Terms and Definitions

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

3.1.1
expanded perlite
lightweight granular (insulation) material manufactured from naturally occurring volcanic rock expanded by heat to form a cellular structure

[EN ISO 9229]

3.1.2
perlite aggregate
expanded perlite with no treatment or surface coating, used as a loose insulation in cavities

3.1.3
coated perlite
expanded perlite which has a coating

3.1.4
hydrophobic perlite
expanded perlite which is treated to give specific hydrophobic properties and used where moisture or water repellency is required

3.1.5
premixed perlite
expanded perlite premixed with binders to form bonded materials in end use applications

3.1.6
level
given value which is the upper or lower limit of requirement, where the level is given by the declared value of the characteristic concerned

3.1.7
class
combination of two levels of the same property between which the performance shall fall, where the level is given by the declared value of the characteristic concerned