

Soojusisolatsioon maanteede, raudteede ja teetammide täiteks

Tööstuslikult valmistatud ekstrudeeritud vahtpolüstüreenist tooted (XPS)

Spetsifikatsioon

Thermal insulation of road and railways and embankment filling

Factory made products of extruded polystyrene foam (XPS)

Specification

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14934:2007 sisaldab Euroopa standardi EN 14934:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 22.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14934:2007 consists of the English text of the European standard EN 14934:2007.</p> <p>This document is endorsed on 22.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard specifies the requirements for factory made products of extruded polystyrene foam which are used for frost insulation of roads, railways, trafficked areas, light weight fill for reduction of horizontal and vertical earth pressure and other civil engineering applications. The products are manufactured in the form of boards, which are also available with special edge and surface treatment (tongue & grooves, shiplap etc.). The standard also covers multilayered insulation boards. This standard describes product characteristics and includes procedures for testing, evaluation of conformity, marking and labelling.</p>	<p>Scope: This European Standard specifies the requirements for factory made products of extruded polystyrene foam which are used for frost insulation of roads, railways, trafficked areas, light weight fill for reduction of horizontal and vertical earth pressure and other civil engineering applications. The products are manufactured in the form of boards, which are also available with special edge and surface treatment (tongue & grooves, shiplap etc.). The standard also covers multilayered insulation boards. This standard describes product characteristics and includes procedures for testing, evaluation of conformity, marking and labelling.</p>
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ICS 83.100, 93.010

Võtmesõnad:

ICS 83.100; 93.010

English Version

Thermal insulation and light weight fill products for civil engineering applications - Factory made products of extruded polystyrene foam (XPS) - Specification

Produits isolants thermiques et de remblayage pour les applications de génie civil - Produits manufacturés en mousse de polystyrène extrudé (XPS) - Spécifications

Wärmedämmung und leichte Füllprodukte für Anwendungen im Tiefbau - Werkmäßig hergestellte Produkte aus extrudiertem Polystyrolschaum (XPS) - Spezifikation

This European Standard was approved by CEN on 13 July 2007.

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Foreword

This document (EN 14934:2007) has been prepared by Technical Committee CEN/TC 88 "Thermal insulating materials and 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 March 2008, and conflicting national standards shall be withdrawn at the latest by March 2008.

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 EU Directive(s).

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

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1 Scope

This European Standard specifies the requirements for factory made products of extruded polystyrene foam which are used for frost insulation of roads, railways, trafficked areas, light weight fill for reduction of horizontal and vertical earth pressure and other civil engineering applications.

The products are manufactured in the form of boards, which are also available with special edge and surface treatment (tongue & grooves, shiplap etc.). The standard also covers multilayered insulation boards.

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

The 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 classes and levels required for a given application are to be found in regulations or non-conflicting standards.

For applications where thermal resistance is required, products with a declared thermal resistance lower than $0,25 \text{ m}^2\cdot\text{K}/\text{W}$ or a declared thermal conductivity greater than $0,060 \text{ W}/(\text{m}\cdot\text{K})$ are not covered by this standard. This standard does not cover in situ insulation products and products intended to be used for insulation of buildings, of building equipment and industrial installations or products intended for acoustic insulation.

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 822, *Thermal insulating products for building applications — Determination of length and width*

EN 823, *Thermal insulating products for building applications — Determination of thickness*

EN 824, *Thermal insulating products for building applications — Determination of squareness*

EN 825, *Thermal insulating products for building applications — Determination of flatness*

EN 826, *Thermal insulating products for building applications — Determination of compression behaviour*

EN 1604, *Thermal insulating products for building applications — Determination of dimensional stability under specified temperature and humidity conditions*

EN 1605, *Thermal insulating products for building applications — Determination of deformation under specified compressive load and temperature conditions*

EN 1606, *Thermal insulating products for building applications — Determination of compressive creep*

EN 12086:1997, *Thermal insulating products for building applications — Determination of water vapour transmission properties*

EN 12087, *Thermal insulating products for building applications — Determination of long term water absorption by immersion*

EN 12088, *Thermal insulating products for building applications — Determination of long term water absorption by diffusion*

EN 12089, *Thermal insulating products for building applications — Determination of bending behaviour*

EN 12091, *Thermal insulating products for building applications — Determination of freeze-thaw resistance*

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 12939, *Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Thick products of high and medium thermal resistance*

EN 13172:2001, *Thermal insulating products — Evaluation of conformity*

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using test data from reaction to fire test*

EN 13793, *Thermal insulating products for building applications — Determination of behaviour under cyclic loading*

EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to thermal attack by a single burning item*

EN ISO 1182, *Reaction to fire tests for building products — Non combustibility test (ISO 1182:2002)*

EN ISO 1716, *Reaction to fire tests for building products — Determination of the heat of combustion (ISO 1716:2002)*

EN ISO 9229:2007, *Thermal insulation — Vocabulary (ISO 9229:2007)*

EN ISO 11925-2, *Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2:2002)*

ISO 12491, *Statistical methods for quality control of building materials and components*

3 Terms, definitions, symbols, units and abbreviated terms

3.1 Terms and definitions

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

3.1.1 Terms and definitions as given in EN ISO 9229:2007

3.1.1.1

extruded polystyrene foam

rigid cellular plastics insulation material expanded and extruded with or without a skin, from polystyrene or one of its copolymers and which has a closed cell structure

3.1.1.2

board

rigid or semi-rigid insulation product of rectangular shape and cross section in which the thickness is uniform and substantially smaller than the other dimensions