



SLOVENSKI STANDARD

SIST EN 1264-1:1997

01-november-1997

Talno ogrevanje - Sistemi in sestavni deli - 1. del: Definicije in simboli

Floor heating - Systems and components - Part 1: Definitions and symbols

Fußboden-Heizung - Systeme und Komponenten - Teil 1: Definitionen und Symbole

Chauffage par le sol - Systemes et composants - Partie 1: Définitions et symboles

Ta slovenski standard je istoveten z: EN 1264-1:1997

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ICS:

01.040.91	Gradbeni materiali in gradnja (Slovarji)	Construction materials and building (Vocabularies)
01.075	Simboli za znake	Character symbols
91.140.10	Sistemi centralnega ogrevanja	Central heating systems

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en

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EUROPEAN STANDARD

EN 1264-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1997

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Descriptors: heating, hot water heating, heated floors, vocabulary, symbols

English version

Floor heating - Systems and components - Part 1: Definitions and symbols

Chauffage par le sol - Systèmes et composants
- Partie 1: Définitions et symbolesFußboden-Heizung - Systeme und Komponenten -
Teil 1: Definitionen und Symbole

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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.

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CENEuropean Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 130 "Space heating appliances without integral heat sources", the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by February 1998, and conflicting national standards shall be withdrawn at the latest by February 1998.

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

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Introduction

This European Standard for floor heating systems consists of the following parts :

- Part 1 : Definitions and Symbols
- Part 2 : Determination of the thermal output
- Part 3 : Dimensioning
- Part 4 : Installation

1 Scope

This European Standard is applicable to hot water floor heating systems in residential, office and other buildings, the use of which corresponds to or is similar to that of residential buildings.

This European Standard is not applicable to floor heating systems in wood flooring.

It also applies as appropriate to the use of other heating media instead of water.

The important definitions and symbols for hot water heating systems are specified in this standard.

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2 Normative references

[SIST EN 1264-1:1997](#)

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This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate place in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies :

EN 1264 - 3:1997 Floor heating - Systems and components - Part 3 : Dimensioning

3 Definitions

For the purposes of this standard, the following definitions apply :

3.1 floor heating installation

Installation consisting of floor heating, heating circuit distributors and control equipment.

3.1.1 floor heating

Floor heating system where pipes carrying water with or without additives as a heating medium are laid in the floor.

3.1.2 heating circuit

Section of floor heating connected to a heating circuit distributor which can be independently switched and controlled.

3.1.3 heating circuit distributor

Common connection point for several heating circuits.

3.2 nominal heat loss of a floor heated room ($Q_{N,r}$)

The quantity of heat per time unit leaving the building to the external environment under determined nominal conditions and depending on the climatic data, on the location of the building, use and thermal properties of the building.

3.3 design thermal output (Q_H)

Thermal output resulting from the nominal heat loss of an floor heated room $Q_{N,r}$.

3.4 nominal indoor room temperature (θ_i)

Resultant temperature defined as the average of the dry air temperature and the mean radiant temperature [1],[2].

NOTE : The resultant temperature is considered as the relevant for thermal comfort assessment and heat loss calculations. This value of internal temperature is used for the calculation method

3.5 heating floor area

Area of the floor covered by the heating system between the outer pipes respectively the outer edges of the system with the addition of a strip whose width is equal to half the pipe spacing but not exceeding 0,15 m.

3.6 furniture area

Area of the floor surface not covered by a heating system, intended for permanent placement of furnishings forming part of the building.

3.7 peripheral area

Floor surface which is heated to a higher temperature and is generally an area of 1 m maximum in width along exterior walls. It is not an occupied area.

3.8 occupied area

Area within the heated floor surface occupied for long periods.

NOTE : It consists of the heated floor surface less the peripheral area.

3.9 supplementary heating equipment

Additional heating facility (e. g. convectors, radiators) with the additional heat output Q_{out} ; it may have its own control equipment.

3.10 floor heating components

Components of floor heating are:

- insulating layer (for thermal and footstep noise insulation)
- the protection layer (to protect the insulating layer)
- the heating pipes or plane sections
- the load and thermal distribution layer (screed)
- floor covering
- other items such as conducting devices, peripheral strips, attachment items etc.

NOTE: The components may be different depending on the system.

3.11 types of floor heating structures

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3.11.1 systems with pipes inside the screed type A and C

Systems with heating pipes completely or partially embedded in the screed (see Figure 1).

3.11.2 systems with pipes below screed type B

Systems with heating pipes laid in the thermal insulating layer below the screed (see Figure 1).

3.11.3 systems with plane sections (similar Type B)

Systems with an inline and/or cross flow in the hollow sections in the total area (see Figure 1).

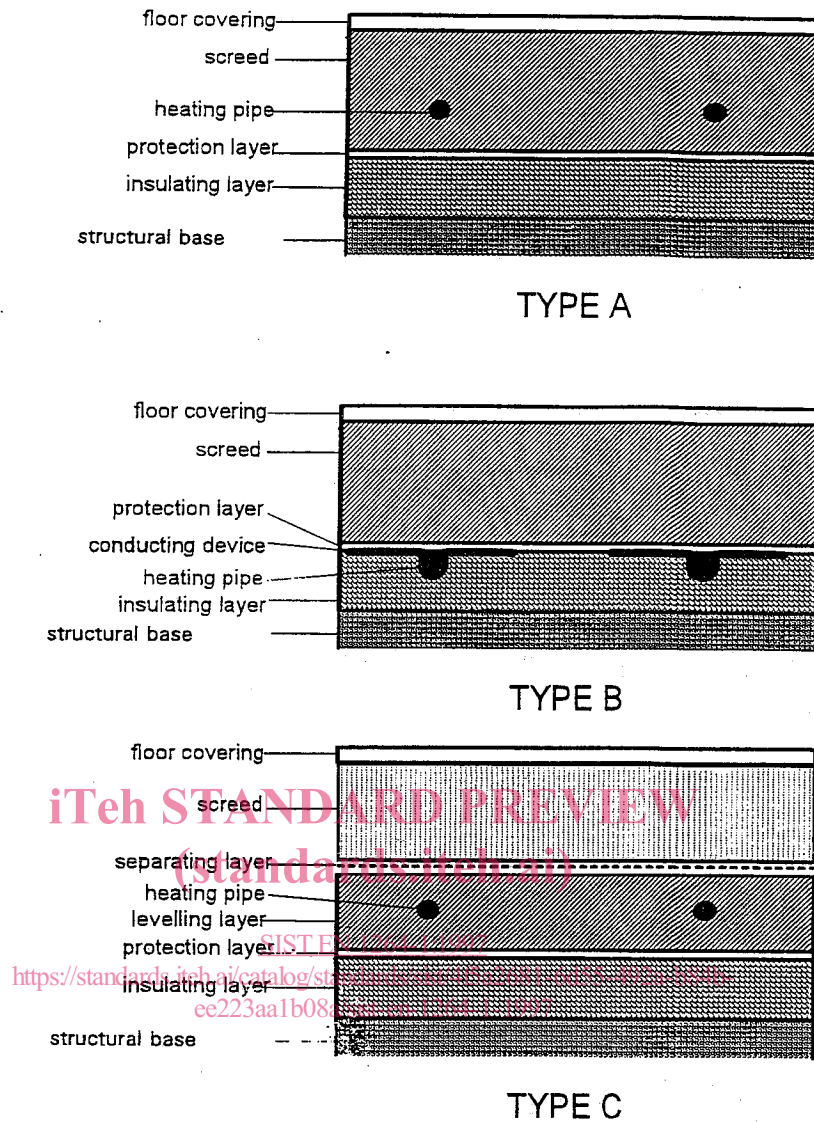


Figure 1 : Types of floor heating structures

3.12 thermal output

3.12.1 heat flow density (q)

Heat flow divided by the surface.

3.12.2 limit heat flow density (q_G)

Heat flow density at which the maximum permissible floor surface temperature is achieved.