

STN	Voľne visiace vykurovacie a chladiace povrchy s prietokom vody s teplotou do 120 °C. Časť 3: Prefabrikované stropné sálavé panely na vykurovanie. Postupy posudzovania a hodnotenia sálavého tepelného výkonu.	STN EN 14037-3 06 1115
------------	---	--

Free hanging heating and cooling surfaces for water with a temperature below 120C - Part 3: Prefabricated ceiling mounted radiant panels for space heating - Rating method and evaluation of radiant thermal output

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/16

Obsahuje: EN 14037-3:2016

Oznámením tejto normy sa od 31.03.2017 ruší
STN EN 14037-3 (06 1115) z januára 2004

123981

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2017
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14037-3

September 2016

ICS 91.140.10

Supersedes EN 14037-3:2003

English Version

**Free hanging heating and cooling surfaces for water with a
temperature below 120°C - Part 3: Prefabricated ceiling
mounted radiant panels for space heating - Rating method
and evaluation of radiant thermal output**

Panneaux rayonnants de chauffage et de
rafraîchissement alimentés avec une eau à une
température inférieure à 120 °C - Partie 3 : Méthode
d'évaluation et calcul de la puissance thermique
radiative des panneaux rayonnants de plafond
préfabriqués destinés au chauffage des locaux

An der Decke frei abgehängte Heiz- und Kühlflächen
für Wasser mit einer Temperatur unter 120 °C - Teil 3:
Vorgefertigte Deckenstrahlplatten zur Raumheizung -
Wärmetechnische Umrechnungen,
Bewertungsmethoden und Festlegung der Strahlungs-
Wärmeleistung

This European Standard was approved by CEN on 19 March 2016.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

European foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Testing of the mean surface temperature and the emissivity of the panel.....	5
4.1 Determination of the mean surface temperature of the active length	5
4.2 Determination of the emissivity	6
5 Thermal output conversion – Determination of the rated thermal output	7
6 Evaluation of the thermal radiant output of a tested panel.....	7
Bibliography.....	8

European foreword

This document (EN 14037-3:2016) 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 document supersedes EN 14037-3:2003.

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 2017, and conflicting national standards shall be withdrawn at the latest by March 2017.

The main changes are:

- the title has been changed,
- the scope has been changed,
- the introduction has been changed,
- some editorial updates have been added.

The European Standard EN 14037, *Free hanging heating and cooling surfaces for water with a temperature below 120°C*, consists of the following parts:

- *Part 1: Prefabricated ceiling mounted radiant panels for space heating - Technical specifications and requirements;*
- *Part 2: Prefabricated ceiling mounted radiant panels for space heating - Test method for thermal output;*
- *Part 3: Prefabricated ceiling mounted radiant panels for space heating - Rating method and evaluation of radiant thermal output;*
- *Part 4: Prefabricated ceiling mounted radiant panels for space heating - Test method for cooling capacity;*
- *Part 5: Open or closed heated ceiling surfaces - Test method for thermal output.*

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.

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.

Introduction

This European Standard results from the recognition, that heated and chilled ceiling radiant panels falling into the field of application hereinafter stated are traded on the basis of their thermal output. For evaluating and comparing different heated and chilled ceiling surfaces it is therefore necessary to refer to a heating stipulated value.

As installations with ceiling mounted radiant panels can also be used in practice for space cooling, it is necessary to have a test method for evaluating the cooling capacity. Installations with different free hanging heating and cooling surfaces need, for the use of space heating a test method for evaluating the heating output. The test method differs from the method for ceiling mounted radiant panels.

1 Scope

This European Standard describes the procedure to determine the rated thermal output (Φ_D) and the mean surface temperature (t_{rp}) of pre-fabricated ceiling mounted radiant panels.

Pre-fabricated ceiling mounted radiant panels exchange heat mainly by radiation.

The test methods for determining the thermal output of pre-fabricated ceiling mounted radiant panels, as described in EN 14037-2:2016, give reliable results for comparing different products, but these results understate the output obtained under real operating conditions.

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 14037-1:2016, *Prefabricated ceiling mounted radiant panels for space heating - Technical specifications and requirements*

EN 14037-2:2016, *Prefabricated ceiling mounted radiant panels for space heating - Test method for thermal output*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN