

norm

NEN-EN-ISO 7933 (en)

Ergonomics of the thermal environment -
Analytical determination and interpretation
of heat stress using calculation of the
predicted heat stain (ISO 7933:2004, IDT)

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Als Nederlandse norm is aanvaard:

- EN ISO 7933:2004, IDT
- ISO 7933:2004, IDT

Normcommissie 302 005 "Ergonomie van de fysische werkomgeving"

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English version

Ergonomics of the thermal environment - Analytical
determination and interpretation of heat stress using calculation
of the predicted heat strain (ISO 7933:2004)

Ergonomie des ambiances thermiques - Détermination
analytique et interprétation de la contrainte thermique
fondées sur le calcul de l'astreinte thermique prévisible
(ISO 7933:2004)

Ergonomie der thermischen Umgebung - Analytische
Bestimmung und Interpretation der Wärmebelastung durch
Berechnung der vorhergesagten Wärmebeanspruchung
(ISO 7933:2004)

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Foreword

This document (EN ISO 7933:2004) has been prepared by Technical Committee ISO/TC 159 "Ergonomics" in collaboration with Technical Committee CEN/TC 122 "Ergonomics", 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of an identical text or by endorsement, at the latest by February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.

This document supersedes EN 12515:1997.

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Endorsement notice

The text of ISO 7933:2004 has been approved by CEN as EN ISO 7933:2004 without any modifications.

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environment — Analytical determination
and interpretation of heat stress using
calculation of the predicted heat strain**

*Ergonomie des ambiances thermiques — Détermination analytique et
interprétation de la contrainte thermique fondées sur le calcul de
l'astresse thermique prévisible*

Preview



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Contents

Page

Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references	1
3 Symbols	2
4 Principles of the method of evaluation.....	5
5 Main steps of the calculation.....	5
5.1 General heat balance equation.....	5
5.2 Calculation of the required evaporative heat flow, the required skin wettedness and the required sweat rate.....	7
6 Interpretation of required sweat rate	8
6.1 Basis of the method of interpretation.....	8
6.2 Analysis of the work situation.....	8
6.3 Determination of maximum allowable exposure time (D_{lim}).....	9
6.4 Organization of work in the heat.....	9
Annex A (normative) Data necessary for the computation of thermal balance.....	10
Annex B (informative) Criteria for estimating acceptable exposure time in a hot work environment.....	18
Annex C (informative) Metabolic rate.....	20
Annex D (informative) Clothing thermal characteristics	22
Annex E (informative) Computer programme for the computation of the Predicted Heat Strain Model.....	24
Annex F (normative) Examples of the Predicted Heat Strain Model computations	33
Bibliography	34

Foreword

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ISO 7933 was prepared by Technical Committee ISO/TC 159, *Ergonomics*, Subcommittee SC 5, *Ergonomics of the physical environment*.

This second edition cancels and replaces the first edition (ISO 7933:1989), which was based on the Required Sweat Rate index. In order to avoid any confusion and, as extensive modifications are brought to the prediction model, the name of the index has been changed to Predicted Heat Strain (PHS).

Introduction

Other International Standards of this series describe how the parameters influencing the human thermoregulation in a given environment must be estimated or quantified. Others specify how these parameters must be integrated in order to predict the degree of discomfort or the health risk in these environments. The present document was prepared to standardize the methods that occupational health specialists should use to approach a given problem and progressively collect the information needed to control or prevent the problem.

The method of computation and interpretation of thermal balance is based on the latest scientific information. Future improvements concerning the calculation of the different terms of the heat balance equation, or its interpretation, will be taken into account when they become available. In its present form, this method of assessment is not applicable to cases where special protective clothing (reflective clothing, active cooling and ventilation, impermeable, with personal protective equipment) is worn.

In addition, occupational health specialists are responsible for evaluating the risk encountered by a given individual, taking into consideration his specific characteristics that might differ from those of a standard subject. ISO 9886 describes how physiological parameters must be used to monitor the physiological behaviour of a particular subject and ISO 12894 describes how medical supervision must be organized.

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