



Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

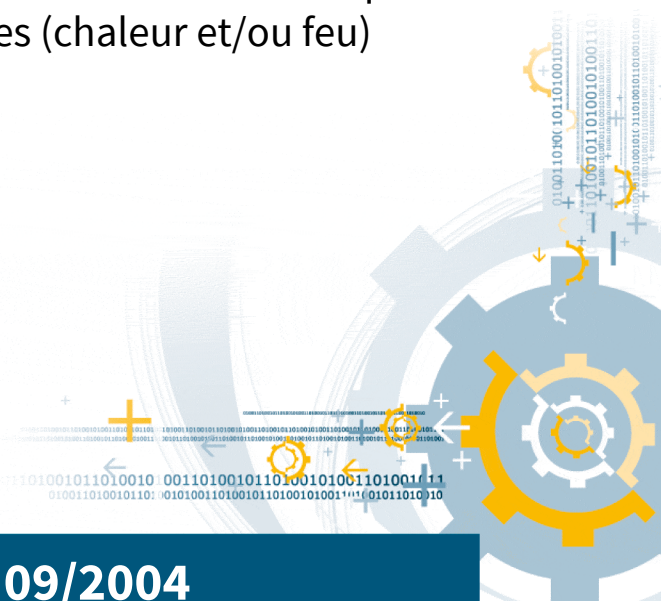
ILNAS-EN 407:2004

**Protective gloves against thermal risks
(heat and/or fire)**

Schutzhandschuhe gegen thermische
Risiken (Hitze und/oder Feuer)

Gants de protection contre les risques
thermiques (chaleur et/ou feu)

09/2004



National Foreword

This European Standard EN 407:2004 was adopted as Luxembourgish Standard ILNAS-EN 407:2004.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

THIS PUBLICATION IS COPYRIGHT PROTECTED

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

EUROPEAN STANDARD ILNAS-EN 407:2004 **EN 407**
NORME EUROPÉENNE
EUROPÄISCHE NORM

September 2004

ICS 13.340.40

Supersedes EN 407:1994

English version

Protective gloves against thermal risks (heat and/or fire)

Gants de protection contre les risques thermiques (chaleur
et/ou feu)

Schutzhandschuhe gegen thermische Risiken (Hitze
und/oder Feuer)

This European Standard was approved by CEN on 24 June 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 General requirements.....	5
4.1 General.....	5
4.2 Sizes.....	5
4.3 Abrasion	5
4.4 Tear resistance.....	5
5 Thermal performance	5
5.1 Burning behaviour	6
5.2 Contact heat	7
5.3 Convective heat	7
5.4 Radiant heat	7
5.5 Small splashes of molten metal	8
5.6 Large quantities of molten metal	8
6 Test methods.....	8
6.1 Abrasion	8
6.2 Tear resistance.....	9
6.3 Burning behaviour	9
6.4 Contact heat	9
6.5 Convective heat	10
6.6 Radiant heat	10
6.7 Small drops of molten metal.....	10
6.8 Large quantities of molten metal	10
7 Marking	11
8 Information supplied by the manufacturer	11
Annex A (informative) Uncertainties of measurement and results interpretation	12
Annex B (informative) Example of test method for emergency removal of fire-fighters gloves.....	13
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC.....	14
Bibliography	15

Foreword

This document (EN 407:2004) has been prepared by Technical Committee CEN/TC 162 “Protective clothing including hand and arm protection and lifejackets”, 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 2005, and conflicting national standards shall be withdrawn at the latest by March 2005.

This document supersedes EN 407:1994.

This document includes a Bibliography.

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.

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

1 Scope

This document specifies requirements, test methods, information to be supplied and marking for protective gloves against heat and/or fire. It should be used for all gloves which protect the hands against heat and/or flames in one or more of the following forms: fire, contact heat, convective heat, radiant heat, small splashes or large quantities of molten metal.

This standard is only applicable in conjunction with EN420.

There are other standards relevant to specific applications, as for example fire-fighting or welding.

Product tests may only give performance levels and not protection levels.

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 348, *Protective clothing — Test method: Determination of behaviour of materials on impact of small splashes of molten metal.*

EN 367, *Protective clothing - Protection against heat and fire - Method of determining heat transmission on exposure to flame.*

EN 373, *Protective clothing — Assessment of resistance of materials to molten metal splash.*

EN 388, *Protective gloves against mechanical risks.*

EN 420, *Protective gloves - General requirements and test methods.*

EN 702, *Protective clothing — Protection against heat and flame — Test method: Determination of the contact heat transmission through protective clothing or its materials.*

EN ISO 6941, *Textile fabrics — Burning behaviour — Measurement of flame spread properties of vertically oriented specimens (ISO 6941:2003).*

EN ISO 6942:2002, *Protective clothing — Protection against heat and fire — Method of test: Evaluation of materials and material assemblies when exposed to a source of radiant heat (ISO 6942:2002).*

3 Terms and definitions

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

3.1

after flame time

time in seconds from the removal of the ignition source until the extinction of the flame in the test specimen

3.2

after glow time

time in seconds from the extinction of the flame up to the cessation of glowing. If the sample is not ignited by the ignition source, but it glows after the removal of the ignition source, then the after glow time is measured from the time of removal of the ignition source

3.3

melting

liquefaction of the material under the influence of heat