Protective clothing for abrasive blasting operations using granular abrasives

Vêtements de protection utilisés lors des opérations de projection d'abrasifs en grains
<table>
<thead>
<tr>
<th>PDF disclaimer</th>
</tr>
</thead>
<tbody>
<tr>
<td>This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area. Adobe is a trademark of Adobe Systems Incorporated. Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.</td>
</tr>
</tbody>
</table>
Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14877 was prepared by the European Committee for Standardization (CEN) in collaboration with Technical Committee ISO/TC 94, Personal safety — Protective clothing and equipment, Subcommittee SC 13, Protective clothing, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this document, read "...this European Standard..." to mean "...this International Standard...".

Annex ZZ provides a list of corresponding International and European Standards for which equivalents are not given in the text.

For the purposes of this International Standard, the CEN annex regarding fulfilment of European Council Directives has been removed.
Contents

Foreword........................................................................................................................................................................vi
Introduction.........................................................................................................................................................................vii
1 Scope ..............................................................................................................................................................................1
2 Normative References.....................................................................................................................................................1
3 Terms and definitions.......................................................................................................................................................2
4 Requirements .................................................................................................................................................................2
  4.1 General.......................................................................................................................................................................2
  4.2 Requirements for protective gloves for abrasive blasting operations .................................................................2
      4.2.1 General requirements ..............................................................................................................................................2
      4.2.2 Abrasion resistance of glove materials ...............................................................................................................2
      4.2.3 Blade cut resistance of glove materials ..............................................................................................................2
      4.2.4 Tear resistance of glove materials ......................................................................................................................2
      4.2.5 Puncture resistance of glove materials .............................................................................................................2
      4.2.6 Dimensions of gloves for abrasive blasting operations .....................................................................................3
      4.2.7 Dexterity for abrasive blasting operations ....................................................................................................3
  4.3 Requirements for protective clothing for abrasive blasting operations ............................................................3
    4.3.1 Types.....................................................................................................................................................................3
    4.3.2 General requirements for protective clothing for abrasive blasting operations (all types) .........................3
    4.3.3 Additional requirements for abrasive blasting clothing of types 2 and 3 .........................................................4
  5 Testing ............................................................................................................................................................................5
    5.1 Sampling and conditioning ........................................................................................................................................5
    5.2 Test methods for protective gloves for abrasive blasting operations ............................................................5
      5.2.1 Determination of the abrasion resistance of glove materials ............................................................................5
      5.2.2 Determination of the blade cut resistance of glove materials ........................................................................5
      5.2.3 Determination of the tear resistance of glove materials ....................................................................................5
      5.2.4 Determination of the puncture resistance of glove materials ........................................................................5
      5.2.5 Determination of the dexterity of gloves ..........................................................................................................5
    5.3 Test methods for protective clothing for abrasive blasting operations ............................................................5
      5.3.1 Pretreatment ........................................................................................................................................................5
      5.3.2 Dimensions of clothing materials ....................................................................................................................5
      5.3.3 Breaking strength of clothing materials ............................................................................................................6
      5.3.4 Seam strength of clothing materials ..................................................................................................................6
      5.3.5 Puncture resistance of clothing materials .......................................................................................................6
      5.3.6 Tear resistance of clothing materials ................................................................................................................6
      5.3.7 Resistance of the protective clothing material against abrasives ...................................................................6
      5.3.8 Flammability ......................................................................................................................................................8
      5.3.9 Abrasion .............................................................................................................................................................8
    5.4 Additional test to be carried out for abrasive blasting clothing of type 3 .............................................................8
  6 Marking and information supplied by the manufacturer ...........................................................................................10
    6.1 Marking ....................................................................................................................................................................10
    6.1.1 Marking of protective gloves for abrasive blasting operations .....................................................................10
    6.1.2 Marking of protective clothing for abrasive blasting operations .................................................................10
    6.2 Information supplied by the manufacturer ..........................................................................................................10
    6.2.1 Information supplied by the manufacturer for gloves for abrasive blasting operations .............................10
    6.2.2 Information supplied by the manufacturer for protective clothing for abrasive blasting operations .............10
Annex A (informative) Examples of protective clothing for abrasive blasting operations .....................................11
Foreword

The text of EN ISO 14877:2002 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, in collaboration with Technical Committee ISO/TC 94 "Personal safety - Protective clothing and equipment".

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 October 2002, and conflicting national standards shall be withdrawn at the latest by October 2002.

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.

Annex A is informative.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.
Introduction

In abrasive blasting, the worker is exposed to hazards caused by the abrasive (direct projection and rebounding abrasives) and substances produced during the abrasive blasting operation. Depending on the working conditions, the protection against these hazards requires suitable protective clothing as well as suitable respiratory protective equipment. For clothing connected to respiratory protective devices, this standard takes into account the specifications regarding respiratory protective equipment (CEN/TC 79).