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**BS EN 14973:2015**



**BSI Standards Publication**

# **Conveyor belts for use in underground installations — Electrical and flammability safety requirements**

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This British Standard is the UK implementation of EN 14973:2015. It supersedes BS EN 14973:2006+A1:2008 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/67, Conveyor belts.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

## Conveyor belts for use in underground installations - Electrical and flammability safety requirements

Courroies transporteuses pour usage dans les  
installations souterraines - Prescriptions de sécurité  
électrique et protection contre l'inflammation

Fördergurte für die Verwendung unter Tage -  
Elektrische und brandtechnische  
Sicherheitsanforderungen

This European Standard was approved by CEN on 26 September 2015.

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.

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

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

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## European foreword

This document (EN 14973:2015) has been prepared by Technical Committee CEN/TC 188 "Conveyor belts", the secretariat of which is held by SNV.

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 May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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.

This document supersedes EN 14973:2006+A1:2008.

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 Annexes ZA and ZB, which are an integral part of this document.

Significant technical changes between this document and the previous edition of this European Standard:

Requirements for alternative Fire Propagation test, method D, added. For a defined range of belts this laboratory scale test can be substituted for the full scale test specified in EN 12881-2 and 8.4 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, 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.

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## Introduction

This document is a type C standard as stated in EN ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

The approach taken in this European Standard is to identify the main hazards encountered in underground conveying applications and to specify requirements for conveyor belts that will provide the necessary operational safety. Three Classes are specified, A, B and C, as defined in 3.9 to 3.11.

NOTE According to national authorities Class C (C1/C2) conveyor belts are requested for use in EU coal mining.

## 1 Scope

This European Standard specifies electrical and flammability safety requirements for conveyor belts intended for use in underground installations, in the presence of flammable or non-flammable atmospheres.

Conveyor belts covered by this European Standard and intended for use in flammable atmospheres are intended for use on conveyor belt installations (machinery in mines). The belt is a component or part of equipment, which can be incorporated into the conveyor, which is an equipment of Group I, Category M2, as defined in 3.2.2 of EN 13463-1:2009.

This European Standard is not applicable to light conveyor belts as described in EN ISO 21183-1:2006 nor is it applicable to conveyor belts which are manufactured before the date of publication of this document by CEN.

This European Standard deals with those significant hazards detailed in A.1.

Attention is drawn to Annexes ZA and ZB.

NOTE A summary of the requirements of this European Standard is given in Table 2. This is intended for quick reference only.

## 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 1554:2012, *Conveyor belts — Drum friction testing*

EN 1710:2005+A1:2008, *Equipment and components intended for use in potentially explosive atmospheres in underground mines*

EN 12881-1:2014, *Conveyor belts — Fire simulation flammability testing — Part 1: Propane burner tests*

EN 12881-2, *Conveyor belts — Fire simulation flammability testing — Part 2: Large-scale fire test*

EN 13463-1:2009, *Non-electrical equipment for use in potentially explosive atmospheres — Part 1: Basic method and requirements*

EN 31010, *Risk management — Risk assessment techniques*

EN ISO 284, *Conveyor belts — Electrical conductivity — Specification and test method (ISO 284)*

EN ISO 340, *Conveyor belts — Laboratory scale flammability characteristics — Requirements and test method (ISO 340)*

EN ISO 12100, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100)*

EN ISO 15236-3:2007, *Steel cord conveyor belts — Part 3: Special safety requirements for belts for use in underground installations (ISO 15236-3:2007)*

EN ISO 22721:2007, *Conveyor belts — Specification for rubber- or plastics-covered conveyor belts of textile construction for underground mining (ISO 22721:2007)*