

საქართველოს სტანდარტი

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აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით გავრცელება

English Version

Determination of maximum explosion pressure and the maximum rate of pressure rise of gases and vapours

Détermination de la pression maximale d'explosion et de la vitesse maximale de montée en pression des gaz et des vapeurs

Verfahren zur Bestimmung des maximalen Explosionsdruckes und des maximalen zeitlichen Druckanstieges für Gase und Dämpfe

This European Standard was approved by CEN on 1 July 2011.

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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Foreword

This document (EN 15967:2011) has been prepared by Technical Committee CEN/TC 305 “Potentially explosive atmospheres - Explosion prevention and protection”, 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of an identical text or by endorsement, at the latest by February 2012, and conflicting national standards shall be withdrawn at the latest by February 2012.

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 13673-1:2003, EN 13673-2:2005.

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 and B which are an integral part of this document.

The significant changes between this European Standard and EN 13673-1:2003 and EN 13673-2:2005 are given in Table G.1

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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Introduction

This European Standard describes test methods for the determination of:

- the explosion pressure and the maximum explosion pressure; and
- the rate of explosion pressure rise and the maximum rate of explosion pressure rise;

of a quiescent flammable gas/air/inert mixture at ambient temperature and pressure.

Maximum explosion pressure and maximum rate of explosion pressure rise are used for designing explosion protection measures, such as explosion pressure resistant or explosion pressure shock resistant apparatus, explosion venting and explosion suppression. These characteristics are particularly influenced by:

- the size and shape of the vessel;
- the type and energy of the ignition source;
- the temperature and pressure;
- the turbulence.

It is therefore necessary to standardise the conditions at which the maximum explosion pressure and the maximum rate of explosion pressure rise are determined.