National Standards Authority of Ireland

IRISH STANDARD

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DETERMINATION OF THE MAXIMUM EXPLOSION PRESSURE AND THE MAXIMUM RATE OF PRESSURE RISE OF GASES AND VAPOURS - PART 1: DETERMINATION OF THE MAXIMUM EXPLOSION PRESSURE

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English version

Determination of the maximum explosion pressure and the maximum rate of pressure rise of gases and vapours - Part 1: Determination of the maximum explosion pressure

Détermination de la pression maximale d'explosion et de la vitesse maximale de montée en pression des gaz et vapeurs - Partie 1: Détermination de la pression maximale d'explosion

Verfahren zur Bestimmung des maximalen Explosionsdruckes und des maximalen zeitlichen Druckanstieges für Gase und Dämpfe - Teil 1: Bestimmungsverfahren für den maximalen Explosionsdruck

This European Standard was approved by CEN on 2 January 2003.

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 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 Management Centre has the same status as the official versions.

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

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

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Contents

Foreword

This document (EN 13673-1:2003) 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of an identical text or by endorsement, at the latest by October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

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.

Annexes B, C and D are informative.

Annex A is normative.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard describes a test method for the determination of the explosion pressure and the maximum explosion pressure of a flammable gas/air/inert mixture at ambient temperature and pressure.

Explosion pressures and maximum explosion pressures are used in the design of explosion protection techniques, such as explosion resistant and explosion shock resistant construction. These are particularly influenced by :

— size and shape of the vessel;

— type and energy of the ignition source;

— temperature and pressure.

So it is important that they are measured at standardised conditions.