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Standards

Irish Standard  
I.S. EN 1366-3:2009 (AUG 09)

# Fire resistance tests for service installations - Part 3: Penetration seals

## I.S. EN 1366-3:2009 (Aug 09)

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<b>NSAI</b> 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W <b>NSAI.ie</b>	<b>Sales:</b> T +353 1 857 6730 F +353 1 857 6729 W standards.ie	<b>Price Code:</b> <b>AB</b>
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Údarás um Chaighdeáin Náisiúnta na hÉireann

English Version

## Fire resistance tests for service installations - Part 3: Penetration seals

Essais de résistance au feu des installations techniques -  
Partie 3 : Calfeutrements de trémies

Feuerwiderstandsprüfungen für Installationen - Teil 3:  
Abschottungen

This European Standard was approved by CEN on 3 January 2009.

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## **Foreword**

This document (EN 1366:2009) has been prepared by Technical Committee CEN/TC 127 “”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by August 2009, and conflicting national standards shall be withdrawn at the latest by August 2009.

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 1366-3:2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

Annexes A to G are normative. Annex H is informative.

EN 1366, *Fire resistance tests for service installations* consists of the following:

*Part 1: Ducts*

*Part 2: Fire dampers*

*Part 3: Penetration seals*

*Part 4: Linear joint seals*

*Part 5: Service ducts and shafts*

*Part 6: Raised access floors and hollow floors*

*Part 7: Conveyors systems and their closures*

*Part 8: Smoke extraction ducts*

*Part 9: Single compartment smoke extraction ducts*

*Part 10: Smoke control dampers (in course of preparation)*

*Part 11: Protective systems for essential services (in course of preparation)*

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, 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.

## Introduction

This part of this European Standard has been prepared to provide a method of test for assessing the contribution of a penetration seal to the fire resistance of separating elements when they have been penetrated by a service or services.

**CAUTION — The attention of all persons concerned with managing and carrying out this fire resistance test is drawn to the fact that fire testing may be hazardous and that there is a possibility that toxic and/or harmful smoke and gases may be evolved during the test. Mechanical and operational hazards may also arise during the construction of the test elements or structures, their testing and disposal of test residues.**

An assessment of all potential hazards and risks to health should be made and safety precautions should be identified and provided. Written safety instructions should be issued. Appropriate training should be given to relevant personnel. Laboratory personnel should ensure that they follow written safety instructions at all times.

## 1 Scope

This Part of EN 1366 specifies a method of test and criteria for the evaluation (including field of application rules) of the ability of a penetration seal to maintain the fire resistance of a separating element at the position at which it has been penetrated by a service. Penetration seals used to seal gaps around chimneys, air ventilation systems, fire rated ventilation ducts, fire rated service ducts, shafts and smoke extraction ducts are excluded from this standard except for mixed penetration seals. The fire resistance of those services itself cannot be assessed with the methods described in this standard.

Supporting constructions are used in this standard to represent separating elements such as walls or floors. These simulate the interaction between the test specimen and the separating element into which the sealing system is to be installed in practice.

This European Standard is used in conjunction with EN 1363-1.

The purpose of this test described in this standard is to assess:

- a) the effect of such penetrations on the integrity and insulation performance of the separating element concerned;
- b) the integrity and insulation performance of the penetration seal;
- c) the insulation performance of the penetrating service or services, and where necessary, the integrity failure of a service.

No information can be implied by the test concerning the influence of the inclusion of such penetrations and sealing systems on the loadbearing capacity of the separating element.

It is not the intention of this test to provide quantitative information on the rate of leakage of smoke and/or hot gases or on the transmission or generation of fumes. Such phenomena are only to be noted in describing the general behaviour of test specimens during the test.

This test is not intended to supply any information on the ability of the penetration seal to withstand stress caused by movements or displacements of the penetrating services.

The risk of spread of fire downwards caused by burning material, which drips through a pipe downwards to floors below, cannot be assessed with this test.

Explanatory notes to this test method are given in Annex H.

All dimensions given without tolerances are nominal ones unless otherwise stated.

## 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 520, *Gypsum plasterboards – Definitions, requirements and test methods*

EN 1329-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure – Unplasticized poly(vinyl chloride) (PVC-U) – Part 1: Specifications for pipes, fittings and the system*

EN 1363-1:1999, *Fire resistance tests – Part 1: General requirements*



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