



NSAI
Standards

Irish Standard
I.S. 291:2015+A1:2022

Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers and Amendment 1

I.S. 291:2015+A1:2022

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NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

DECLARATION

OF

SPECIFICATION

ENTITLED

SELECTION, COMMISSIONING, INSTALLATION, INSPECTION AND MAINTENANCE OF PORTABLE FIRE
EXTINGUISHERS AND AMENDMENT 1

AS

THE IRISH STANDARD SPECIFICATION FOR

SELECTION, COMMISSIONING, INSTALLATION, INSPECTION AND MAINTENANCE OF PORTABLE FIRE
EXTINGUISHERS AND AMENDMENT 1

NSAI in exercise of the power conferred by section 16 of the National Standards Authority of Ireland Act, 1996 (No. 28 of 1996) and with the consent of the Minister for, Enterprise, Trade and Employment, hereby declares as follows:

1. This instrument may be cited as the Standard Specification (Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers and Amendment 1) Declaration, 2022.
2. (1) The Specification set forth in the Schedule to this declaration is hereby declared to be the standard specification for Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers and Amendment 1:2022.

(2) The said Standard Specification may be cited as Irish Standard 291:2015+A1:2022 or as I.S. 291:2015+A1:2022.
3. (1) The Standard Specification (Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers) Declaration 2015 is hereby revoked.

(2) Reference in any other standard specification to the instrument hereby revoked and to Irish Standard 291:2015 thereby prescribed, shall be construed, respectively, as references to this instrument and to Irish Standard 291:2015+A1:2022.

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I.S. 291:2015+A1:2022

Foreword

A1 This document is an amended version of I.S. 291:2015, Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers.

This document, I.S. 291:2015+A1:2022, has been prepared with the assistance of the National Standards Authority of Ireland Fire safety standards committee (FSSC), working group 3 – Fire services equipment.

A number of changes have been made with the amendments indicated by the tag **A1** **A1**. The document includes a number of minor editorial corrections which are not detailed with tags.

There are a number of Annexes to this document. These Annexes are referred to as either Normative or Informative Annexes. Normative Annexes are mandatory for compliance with this document whereas Informative Annexes are for information only.

Compliance with an Irish Standard does not of itself confer immunity from legal obligations

This document has been drafted in line with international standards practice. The following representation of numbers and numerical values apply:

- The decimal point is shown as a comma (,) throughout this document,
- Each group of three digits reading to the left or to the right of a decimal sign are separated by a space from the preceding digits or following digits respectively.

The following verbal forms are used:

- “shall” indicates a requirement,
- “should” indicates a recommendation,
- “may” indicates a permission,
- “can” indicates a possibility or a capability.

Information marked as “NOTE” is for guidance in understanding or clarifying the associated recommendation.

A1

Introduction

A1 The aim of this document is to promote wider understanding of the selection, commissioning, installation, inspection and maintenance of portable fire extinguishers (PFEs). It also aims to encourage uniformity of application, based on providing enhanced safety to persons in the event of an outbreak of fire.

The scope of this document, limiting its application to PFEs fitted with Pressure Relief Devices (PRDs), reflects concerns raised by a Coroner's Report into an accident that happened in Ireland in which a member of the public died as a result of being struck by part of an exploding PFE due to over pressurisation from excessive heat, in this case from a fire.

The requirements of this document are minimum requirements. A person(s) and/or organisation(s) can operate to higher performance levels if their risk assessment indicates that this should be done. **A1**

PFEs contain an extinguishing medium and an expelling gas and include;

- stored pressure PFEs, where the extinguishing medium is expelled by pressure stored within the body of the PFE,
- cartridge operated PFEs, where the extinguishing medium is expelled by pressure from a gas cartridge,
- carbon dioxide PFEs, where carbon dioxide, which is both the extinguishing and the expelling medium is stored within the body of the PFE.

Training in the use of PFEs is an important part of compliance with a fire safety management **A1** plan. **A1**

I.S. 291:2015+A1:2022

Schedule

Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers

1 Scope

Ⓐ This document gives guidelines for Ⓐ the selection, commissioning, installation, inspection and maintenance of Portable Fire Extinguishers (PFEs) fitted with a suitably sized pressure relief device on all types and sizes of PFEs.

This Ⓐ document is applicable to: Ⓐ

- water-based type PFEs,
- foam type PFEs,
- powder type PFEs,
- carbon dioxide type PFEs,
- wet chemical type PFEs.

This Ⓐ document does not apply to: Ⓐ

- obsolete PFEs,
- soda acid and chemical foam PFEs,
- halon Ⓐ PFEs Ⓐ,
- PFEs containing extinguishing media and/or expellant that are not allowed to be used under National Regulations,
- PFEs with copper or brass bodies including shell bodies joined by rivets or soft solder,
- carbon dioxide Ⓐ PFEs Ⓐ with a tube connecting a metal horn to the valve,
- PFEs that are operated by inversion,
- PFEs with plastic and/or fibreglass body shells,
- aerosol type PFEs,
- disposable PFEs i.e. Ⓐ PFEs Ⓐ not designed for recharging,
- PFEs with plastic heads i.e. headcaps manufactured from plastics designed to retain working pressure on actuation of the operating mechanism,
- PFEs that do not have a safety pressure Ⓐ relief Ⓐ device,
- PFEs that cannot be serviced in accordance with the manufacturer's maintenance manual,
- Ⓐ PFEs that are polished stainless steel or polished aluminium finish,

- PFEs that operate by means of total discharge once used or activated,
- PFEs that do not have both the CE mark and the identification number of the notified body affixed legibly by stamping or casting, indelibly on the cylinder and head assembly. A1

2 Normative references

A1 The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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. A1

I.S. EN 2:2004, *Classification of Fires*

I.S. EN 3-7:2004+A1 2007, *Portable Fire Extinguishers - Part 7: Characteristics, performance requirements and test methods*

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A1 I.S. EN 3-8, *Portable fire extinguishers - Part 8: Additional requirements to EN 3-7 for the construction, resistance to pressure and mechanical tests for extinguishers with a maximum allowable pressure equal to or lower than 30 bar*

I.S. EN 3-9, *Portable fire extinguishers - Part 9: Additional requirements to EN 3-7 for pressure resistance of CO₂ extinguishers*

I.S. EN 3-10, *Portable fire extinguishers - Part 10: Provisions for evaluating the conformity of a portable fire extinguisher to EN 3-7*

I.S. EN ISO 10460, *Gas cylinders - Welded aluminium-alloy, carbon and stainless steel gas cylinders - Periodic inspection and testing*

I.S. EN ISO 18119, *Gas cylinders - Seamless steel and seamless aluminium-alloy gas cylinders and tubes - Periodic inspection and testing* A1

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