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Irish Standard
I.S. EN 13565-2:2009

Fixed firefighting systems - Foam systems - Part 2: Design, construction and maintenance

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13565-2:2009/AC

September 2010
Septembre 2010
September 2010

ICS 13.220.20

English version
Version Française
Deutsche Fassung

Fixed firefighting systems - Foam systems - Part 2: Design, construction and maintenance

Installations fixes de lutte contre l'incendie - Systèmes à émulseurs - Partie 2: Calcul, installation et maintenance

Ortsfeste Brandbekämpfungsanlagen - Schaumlöschanlagen - Teil 2: Planung, Einbau und Wartung

This corrigendum becomes effective on 1 September 2010 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 1 septembre 2010 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 1.September 2010 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.

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

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1 Modification to Figure 2

In Figure 2, table, 2nd column, last line, replace "7 - 9.5 max (0.25 – 0.37)" *with* "7 to 10 max. (0,25 to 0,37)".

2 Modification to 5.2.2

In 5.2.2, 2nd dash: replace "30 m for fixed roof tanks" *with* "30 m for fixed bund pourers".

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13565-2

May 2009

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English Version

Fixed firefighting systems - Foam systems - Part 2: Design, construction and maintenance

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Foreword

This document (EN 13565-2:2009) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, 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of an identical text or by endorsement, at the latest by November 2009, and conflicting national standards shall be withdrawn at the latest by November 2009.

EN 13565 *Fixed firefighting systems — Foam systems* consists of the following parts:

Part 1: Requirements and test methods for components

Part 2: Design, construction and maintenance

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 United Kingdom.

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Introduction

It has been assumed by the drafting of this European Standard, that the application of the contained requirements shall be given to qualified and experienced personnel only. It is considered to apply to new foam systems and so it is not considered to apply to existing foam systems.

Foam systems are designed to provide a homogeneous layer of bubbles, of aerated fire fighting foam concentrate and water, over the surface of flammable liquids (Class B) and/or combustible materials (Class A). The layer of bubbles will suppress the release of flammable vapours, exclude air, and cool the fuel and hot surfaces.

In addition, High Expansion Foam may be used to provide total flooding of enclosures with 3 dimensional hazards of either Class A and/or Class B fuels.

Prior to the selection and design of foam systems the hazards should undergo a risk assessment; however this is outside the scope of this European Standard. Applications for foam systems can be diverse so no one type of foam system can be prescribed. This European Standard provides guidance for the design of various foam systems available to persons with knowledge and experience in determining the selection of foam fire extinguishing systems which will be effective in protecting specific hazard configurations. The requirement for foam systems derives from risk assessment by those competent to carry out such assessments which are outside the scope of this European Standard. Nothing in this European Standard is intended to restrict new technologies or alternative arrangements, provided the level of safety prescribed by this European Standard is not lowered.

Typical uses of the various types of foam system are set out in Table 1 below:

Table 1 — Typical uses of the various types of foam system

Hazard	Low expansion	Medium expansion	High expansion (indoors)
Flammable liquid storage tanks	Yes	No	No
Tank bunds/collecting areas	Yes	Yes	Yes + LNG/LPG
Process areas	Yes	Yes	Yes
Aircraft hangers	Yes	< 1 400 m^2 only	Yes
Fuel transfer areas	Yes	Yes	Yes
Plastic packaging and storage	Yes	No	Yes
Plastic recycling	Yes	No	No
Refuse handling and storage	Yes	No	No
Liquefied Natural Gas	No	No	Yes (and outdoors)
Tyre storage	Yes	No	Yes
Rolled paper	No	No	Yes
Marine jetties	Yes	Yes	No
Oil filled transformers and switchgear	Yes	No	Yes
Cable tunnels	No	No	Yes
LPG (Liquefied Petroleum Gas)	No	Yes	Yes (and outdoors)
Warehouses – Class A and B fuels	Yes	No	Yes

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NOTE These typical uses are not prescriptive and do not preclude other uses, providing there is a fire engineering basis.

Foam systems may be used to suppress the release of toxic vapours but this application is outside the scope of this European Standard.

The engineering of foam systems is deemed to utilise proportioners and discharge devices evaluated and tested in accordance with EN 13565-1 using foam concentrates complying with EN 1568.

Low and Medium Expansion Foam Systems are not suitable for fire extinguishment of cascading fuel or spray fires, however, they will/may be of value in the control of resultant spill fires.

All foam systems are generally unsuitable for the following:

— chemicals, such as cellulose nitrate, that release sufficient oxygen or other oxidising agents which can sustain combustion;

— energised unenclosed electrical equipment;

— metals such as sodium, potassium and sodium-potassium alloys which are reactive to water;

— hazardous, water–reactive materials such as triethyl-aluminium and phosphorous pentoxide;

— combustible metals such as aluminium and magnesium.

Foam systems reduce the environmental impact of fire by reducing fire effluent both into the atmosphere and onto the ground. This is achieved through a more efficient application of fire extinguishing agent onto the seat of the fire. Such systems also provide increased safety for fire fighting personnel and neighbouring communities.

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