



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 12285-1:2003

ICS 13.300;

**WORKSHOP FABRICATED STEEL TANKS -
PART 1: HORIZONTAL CYLINDRICAL
SINGLE SKIN AND DOUBLE SKIN TANKS FOR
THE UNDERGROUND STORAGE OF
FLAMMABLE AND NON-FLAMMABLE WATER
POLLUTING LIQUIDS**

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Tel: (01) 807 3838

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EUROPEAN STANDARD

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English version

Workshop fabricated steel tanks - Part 1: Horizontal cylindrical single skin and double skin tanks for the underground storage of flammable and non-flammable water polluting liquids

Réservoirs en aciers fabriqués en atelier - Partie
1: Réservoirs horizontaux cylindriques à simple et double
paroi pour le stockage enterré de liquides inflammables et
non-inflammables polluant l'eau

Werksggefertigte Tanks aus Stahl - Teil 1: Liegende
zylindrische ein- und doppelwandige Tanks zur
unterirdischen Lagerung von brennbaren und
nichtbrennbaren wassergefährdenden Flüssigkeiten

This European Standard was approved by CEN on 4 November 2002.

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, Slovak Republic, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN 12285-1:2003 (E)

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Foreword

This document (EN 12285-1:2003) has been prepared by Technical Committee CEN /TC 221 "Shop fabricated metallic tanks and equipment for storage tanks and for service stations", 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 September 2003, and conflicting national standards shall be withdrawn at the latest by September 2003.

This standard is part of a series of standards in the field of shop fabricated metallic tanks. The titles of the standards which are already edited or are under preparation are:

- Workshop fabricated steel tanks; Horizontal cylindrical single skin and double skin tanks for the underground storage of flammable and non-flammable water polluting liquids
- Workshop fabricated steel tanks; Horizontal cylindrical single skin and double skin tanks for the aboveground storage of flammable and non-flammable water polluting liquids.

Further standards will be evaluated according to former decisions of CEN/TC 221 and according to the common rules for standard works for CEN-standards.

Annexes A, B and C are informative.

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, Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom.

EN 12285-1:2003 (E)**1 Scope**

This standard specifies the requirements for shop fabricated cylindrical, horizontal steel tanks, single and double skin for the underground storage of water polluting liquids (both flammable and non-flammable) within the following limits:

- from 800 mm up to 3000 mm nominal diameter and,
- up to a maximum overall length of 6 times the nominal diameter and,
- for liquids with a maximum density of up to 1,9 kg/l and,
- with an operating pressure (p_o) of maximum 1,5 bar (abs.) and,
- for double skin tanks with a vacuum leak detection system where the kinematic viscosity does not exceed $5 \times 10^{-3} \text{ m}^2/\text{s}$.

This standard is applicable for normal operating temperature conditions (-20 °C to +50 °C). Where temperatures are outside this range, additional requirements should be taken into account.

For guidance on the liquid-material combinations see Annex B.

This standard is not applicable to the liquid classes listed in Table 1 because of special dangers involved. This standard does not deal with internal coating.

Table 1 — List of dangerous goods not to be considered by this standard

UN-classification	Dangerous Good
Class 1	Explosives
Class 4.2	Substances liable to spontaneous combustion
Class 4.3	Substances which in contact with water emit flammable gases
Class 5.2	Organic peroxides
Class 6.2	Infectious substances
Class 7	Radioactive substances, hydrocyanic or hydrocyanic solvent liquids, metalcarbonyls, hydrofluoracid, bromide liquids

The classifications referred to are those adopted by the United Nations Committee of Experts on the Transport of Dangerous Goods (not to be interpreted as tank classes described in 3.4).

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