Cryogenic vessels - Transportable vacuum insulated vessels of not more than 1000 litres volume - Part 1: Fundamental requirements

Cryogenic vessels - Transportable vacuum insulated vessels of not more than 1000 litres volume - Part 1: Fundamental requirements

EESTI STANDARDI EESSÕNA

Käesolev Eesti standard EVS-EN 1251-1:2000 sisaldab Euroopa standardi EN 1251-1:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 17.07.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1251-1:2000 consists of the English text of the European standard EN 1251-1:2000. This document is endorsed on 17.07.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

NATIONAL FOREWORD

Käsitlusala: This standard specifies the fundamental requirements for transportable vacuum insulated cryogenic vessels of not more than 1000 litres volume and designed to operate above atmospheric pressure. Appropriate parts may be used as a guidance for vessels designed to operate to the atmosphere. This standard applies to transportable vacuum insulated cryognic vessels for fluids and is not applicable to such vessels designed for toxic fuels.	**Scope:** This standard specifies the fundamental requirements for transportable vacuum insulated cryogenic vessels of not more than 1000 litres volume and designed to operate above atmospheric pressure. Appropriate parts may be used as a guidance for vessels designed to operate to the atmosphere. This standard applies to transportable vacuum insulated cryognic vessels for fluids and is not applicable to such vessels designed for toxic fuels.

ICS 23.020.40

Võtmesõnad:

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1251-1

January 2000

ICS 23.020.40

English version

Cryogenic vessels – Transportable vacuum insulated vessels of not more than 1 000 litres volume

Part 1: Fundamental requirements

Récipients cryogéniques – Récipients transportables, isolés sous vide, d'un volume n'excédant pas 1 000 litres – Partie 1: Exigences fondamentales

Kryo-Behälter – Ortsbewegliche, vakuum-isolierte Behälter mit einem Fassungsraum von nicht mehr als 1 000 Liter – Teil 1: Grundanforderungen

This European Standard was approved by CEN on 1999-06-19.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Ref. No. EN 1251-1 : 2000 E

Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 268 "Cryogenic vessels", the secretariat of which is held by AFNOR.

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 July 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.

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

The standard has been submitted for reference into the RID and/or in the technical annexes of the ADR.

Therefore the standards listed in the normative references and covering basic requirements of the RID/ADR not addressed within the present standard are normative only when the standards themselves are referred to in the RID and/or in the technical annexes of the ADR.

The other parts of EN 1251 are :

— Part 2 : Design, fabrication, inspection and testing ;

— Part 3 : Operational requirements.

1 Scope

This standard specifies the fundamental requirements for transportable vacuum insulated cryogenic vessels of not more than 1 000 litres volume and designed to operate above atmospheric pressure. Appropriate parts may be used as a guidance for vessels designed to operate to the atmosphere.

This standard applies to transportable vacuum insulated cryogenic vessels for fluids as specified in 3.1 and is not applicable to such vessels designed for toxic fluids.

NOTE For the purposes of this standards, in the English and German versions, "cryogenic vessels" and "Tiefkalte Behälter" mean reciprocating "cryogenic receptacles" and "Kryo-Behälter" as defined in RID/ADR.

2 Normative references

This European Standard incorporates by dated or undated references provisions from other publications. These normative references are cited at appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to, or revisions of, any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 1251-2, *Cryogenic vessels - Transportable vacuum insulated vessels of not more than 1 000 litres volume - Part 2 : Design, fabrication, inspection and testing*

EN 1251-3, *Cryogenic vessels - Transportable vacuum insulated vessels of not more than 1 000 litres volume - Part 3 : Operational requirements*

EN 1252-1, *Cryogenic vessels - Materials - Part 1: Mechanical characteristics for temperature below - 80 C*

EN 1626, *Cryogenic vessels - Valves for cryogenic service*

EN 1797-1, *Cryogenic vessels - Gas/material compatibility - Part 1: Oxygen compatibility*

EN 10204, *Metallic products - Types of inspection documents*

EN 12300, *Cryogenic vessels - Cleanliness for cryogenic service*

3 Definitions

For the purposes of this standard, the following definitions apply :

3.1
cryogenic fluid (refrigerated liquefied gas)
a gas which is partially liquid because of its low temperature[1)].In the context of all parts of prEN 1251 the (refrigerated but) non-toxic gases given in table 1 and mixtures of them are referred to as cryogenic fluids.

[1)] This includes totally evaporated liquids and supercritical fluids.