

Underground tanks of glass-reinforced plastics (GRP) — Determination of factor α and factor β

The European Standard EN 978 : 1997 has the status of a
British Standard

ICS 23.020.10

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents



Document Sharing Hub

National foreword

This British Standard is the English language version of EN 978 : 1997.

The UK participation in its preparation was entrusted to Technical Committee PRI/64, GRP tanks for underground petrol storage, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled 'International Standards Correspondence Index', or by using the 'Find' facility of the BSI Standards Electronic Catalogue.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 8, an inside back cover and a back cover.

Amendments issued since publication

Amd. No.	Date	Text affected

This British Standard, having been prepared under the direction of the Sector Board for Materials and Chemicals, was published under the authority of the Standards Board and comes into effect on 15 December 1997

© BSI 1997

ISBN 0 580 28931 1

ICS 23.020.10

Descriptors: Storage tanks, underground tanks, plastics, thermosetting resins, reinforced plastics, glass reinforced plastics, creep tests, ageing tests, materials

English version

Underground tanks of glass-reinforced plastics (GRP) — Determination of factor α and factor β

Réservoirs enterrés en plastiques renforcés de verre
(PRV) — Détermination du facteur α et du
facteur β

Unterirdische Tanks aus textilglasverstärkten
Kunststoffen (GFK) — Bestimmung des Faktors α
und des Faktors β

This European Standard was approved by CEN on 1997-06-21. 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.

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

CEN

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

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

© 1997 CEN — All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 210, GRP tanks and vessels, 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 January 1998, and conflicting national standards shall be withdrawn at the latest by January 1998.

This standard is drafted in support of EN 976-1 and EN 976-3, *Horizontal cylindrical tanks for the non-pressure storage of liquid petroleum based fuels — Part 1: Requirements and test methods for single wall tanks and Part 3: Requirements and test methods for double wall tanks*, in order to assess the structural stability and the environmental behaviour of the tank.

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.

Contents

	Page
Foreword	2
1 Scope	3
2 Normative references	3
3 Definitions	3
3.1 Factor α	3
3.2 Factor β	3
4 Principle	3
5 Apparatus	3
5.1 Testing machine	3
5.2 Four point test rig	3
5.3 Measuring device	3
5.4 Oven for post curing	3
5.5 Waterbath	3
6 Test specimens	5
6.1 Number of test specimens	5
6.2 Shape and size of test specimens	5
7 Procedure	5
7.1 Determination of the initial beam stiffness	5
7.2 Determination of factor α	7
7.3 Determination of factor β	7
8 Test Report	8