

**Petroleum and natural gas industries -
Glass-reinforced plastics (GRP) piping -
Part 4: Fabrication, installation and
operation**

Petroleum and natural gas industries - Glass-
reinforced plastics (GRP) piping - Part 4:
Fabrication, installation and operation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 14692-4:2003 sisaldab Euroopa standardi EN ISO 14692-4:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 15.04.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 14692-4:2003 consists of the English text of the European standard EN ISO 14692-4:2002.</p> <p>This document is endorsed on 15.04.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This part of ISO 14692 gives requirements and recommendations for the fabrication, installation and operation of GRP piping systems for use in oil and natural gas industry processing and utility service applications</p>	<p>Scope: This part of ISO 14692 gives requirements and recommendations for the fabrication, installation and operation of GRP piping systems for use in oil and natural gas industry processing and utility service applications</p>
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ICS 75.200, 83.140.30

Võtmesõnad: commissioning, design, fabrication, glass-fibre reinforced plastics, industries, installation, installations, natural gas, natural gas industries, offshore construction works, oil industries, operation, petroleum, pipe laying, pipelayers, pipelines, testing

ICS 75.200; 83.140.30

English version

**Petroleum and natural gas industries - Glass-reinforced plastics
(GRP) piping - Part 4: Fabrication, installation and operation
(ISO 14692-4:2002)**

Industries du pétrole et du gaz naturel - Canalisations en
plastique renforcé de verre (PRV) - Partie 4: Construction,
installation et mise en oeuvre (ISO 14692-4:2002)

This European Standard was approved by CEN on 2 December 2002.

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Foreword

This document (EN ISO 14692-4:2002) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum and natural gas industries", 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 June 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

NOTE FROM CMC The foreword is susceptible to be amended on reception of the German language version. The confirmed or amended foreword, and when appropriate, the normative annex ZA for the references to international publications with their relevant European publications will be circulated with the German version.

Endorsement notice

The text of ISO 14692-4:2002 has been approved by CEN as EN ISO 14692-4:2002 without any modifications.

**Petroleum and natural gas industries —
Glass-reinforced plastics (GRP) piping —**

**Part 4:
Fabrication, installation and operation**

*Industries du pétrole et du gaz naturel — Canalisations en plastique
renforcé de verre (PRV) —*

Partie 4: Construction, installation et mise en œuvre



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14692-4 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 6, *Processing equipment and systems*.

ISO 14692 consists of the following parts, under the general title *Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping*:

- *Part 1: Vocabulary, symbols, applications and materials*
- *Part 2: Qualification and manufacture*
- *Part 3: System design*
- *Part 4: Fabrication, installation and operation*

Introduction

The objective of this part of ISO 14692-4 is to ensure that installed piping systems will meet the specified performance requirements throughout their operational life. Main users of the document are envisaged to be the principal, fabrication/installation contractors, repair and maintenance contractors, certifying authorities and government agencies.

Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping —

Part 4: Fabrication, installation and operation

1 Scope

This part of ISO 14692 gives requirements and recommendations for the fabrication, installation and operation of GRP piping systems for use in oil and natural gas industry processing and utility service applications. The recommendations apply to delivery, inspection, handling, storage, installation, system pressure testing, maintenance, repair and decommissioning.

It is intended to be read in conjunction with ISO 14692-1, which includes an explanation of the pressure terminology used in this part of ISO 14692.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 9712, *Non-destructive testing — Qualification and certification of personnel*

ISO 14692-1:2002, *Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping — Part 1: Vocabulary, symbols, applications and materials*

ISO 14692-2:2002, *Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping — Part 2: Qualification and manufacture*

ISO 14692-3:2002, *Petroleum and natural gas industries — Glass-reinforced plastics (GRP) piping — Part 3: System design*

API Spec 5B, 1996, *Gauging and inspection of casing, tubing, and line pipe threads*

ASTM D257, *Standard test methods for DC resistance or conductance of insulating materials*

ASTM D1599, *Standard test method for resistance to short-time hydraulic failure pressure of plastic pipe, tubing, and fittings*

3 Terms and definitions

For the purposes of this part of ISO 14692, the terms and definitions given in ISO 14692-1 and the following apply.