BS EN ISO 10426-1:2009

Incorporating corrigendum April 2010

# Petroleum and natural gas industries — Cements and materials for well cementing

Part 1: Specification

ICS 75.020; 91.100.10



## National foreword

This British Standard is the UK implementation of EN ISO 10426-1:2009. It is identical to ISO 10426-1:2009, incorporating corrigendum April 2010. It supersedes BS EN ISO 10426-1:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PSE/17/-/3, Drilling and completion fluids and well cements.

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

Guidance for users of BS EN ISO 10426-1:2009 for materials for well cementing, for use in the Petroleum and natural gas industries in the UK is included in National Annex NA (informative).

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 28 February 2010

© BSI 2010

Amendments/corrigenda issued since publication

Date	Comments
31 May 2010	Implementation of ISO corrigendum April 2010; Text added to clauses <b>4.1.1.6</b> and <b>4.1.1.7</b>

ISBN 978 0 580 71050 6

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

### **EN ISO 10426-1**

December 2009

ICS 91.100.10; 75.020

Supersedes EN ISO 10426-1:2006

#### **English Version**

# Petroleum and natural gas industries - Cements and materials for well cementing - Part 1: Specification (ISO 10426-1:2009)

Industries du pétrole et du gaz naturel - Ciments et matériaux pour la cimentation des puits - Partie 1: Spécification (ISO 10426-1:2009)

Erdöl- und Erdgasindustrie - Zemente und Materialien für die Zementation von Tieflochbohrungen - Teil 1: Anforderungen (ISO 10426-1:2009)

This European Standard was approved by CEN on 14 December 2009.

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 CEN 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2009 CEN

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

Ref. No. EN ISO 10426-1:2009: E

This is a preview. Click here to purchase the full publication.

BS EN ISO 10426-1:2009 EN ISO 10426-1:2009 (E)

#### **Foreword**

This document (EN ISO 10426-1:2009) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum, petrochemical 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 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.

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

This document supersedes EN ISO 10426-1:2006.

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 the United Kingdom.

#### **Endorsement notice**

The text of ISO 10426-1:2009 has been approved by CEN as a EN ISO 10426-1:2009 without any modification.

# **Contents** Page

Forew	ord	iv
Introd	uction	v
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4 4.1 4.2	RequirementsSpecification, chemical and physical requirementsSampling frequency, timing of tests, and equipment	3
5	Sampling procedure	8
6 6.1 6.2	Fineness tests Procedure Requirements	8 8
7 7.1 7.2	Preparation of slurry for free fluid, compressive strength and thickening time tests  Apparatus  Procedure	8
8 8.1 8.2 8.3 8.4 8.5	Free-fluid test (formerly free water)  Apparatus  Calibration  Procedure  Calculation of percent free fluid  Acceptance requirements	11 16 17
9 9.1 9.2 9.3 9.4	Compressive strength tests  Apparatus  Procedure  Test procedure (after ASTM C109/C109M)  Compressive strength acceptance criteria	18 19 21
10 10.1 10.2 10.3 10.4 10.5	Thickening-time tests	22 31 33
11	Marking	33
12	Packing	34
13	Bentonite	34
Annex	A (informative) Calibration procedures for thermocouples, temperature measuring systems, and controllers	35
Riblio	nranhv	38