

**SLOVENSKI STANDARD**  
**SIST EN ISO 13500:2009/A1:2014**  
**01-marec-2014**

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**Industrija za predelavo nafte in zemeljskega plina - Materiali za vrtalne tekočine -  
Specifikacije in preskusi - Dopolnilo 1: Barit 4.10 (ISO 13500:2008/AMD 1:2010)**

Petroleum and natural gas industries - Drilling fluid materials - Specifications and tests -  
Amendment 1: Barite 4,1 (ISO 13500:2008/AMD 1:2010)

Erdöl- und Erdgasindustrie - Bohrspülungen - Spezifikationen und Prüfungen - Änderung  
A1: Barite 4.10 (ISO 13500:2008/AMD 1:2010)

Industries du pétrole et du gaz naturel - Produits pour fluides de forage - Spécifications  
et essais - Amendement 1: Baryte 4,1 (ISO 13500:2008/AMD 1:2010)

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**Ta slovenski standard je istoveten z: EN ISO 13500:2008/A1:2010**

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**ICS:**

75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 13500:2008/A1**

December 2010

ICS 75.180.10

English Version

**Petroleum and natural gas industries - Drilling fluid materials -  
Specifications and tests - Amendment 1: Barite 4,1 (ISO  
13500:2008/AMD 1:2010)**

Industries du pétrole et du gaz naturel - Produits pour  
fluides de forage - Spécifications et essais - Amendement  
1: Baryte 4,1 (ISO 13500:2008/AMD 1:2010)

Erdöl- und Erdgasindustrie - Bohrspülungen -  
Spezifikationen und Prüfungen - Änderung A1: Barite 4.10  
(ISO 13500:2008/AMD 1:2010)

This amendment A1 modifies the European Standard EN ISO 13500:2008; it was approved by CEN on 13 November 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This amendment 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-CENELEC Management Centre has the same status as the official versions.

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## Foreword

This document (EN ISO 13500:2008/A1:2010) 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 2011, and conflicting national standards shall be withdrawn at the latest by June 2011.

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.

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, Croatia, 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.

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The text of ISO 13500:2008/A1:2010 has been approved by CEN as a EN ISO 13500:2008/A1:2010 without any modification.

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# INTERNATIONAL STANDARD

# ISO 13500

Third edition  
2008-11-01

**AMENDMENT 1**  
2010-12-01

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## Petroleum and natural gas industries — Drilling fluid materials — Specifications and tests

### AMENDMENT 1: Barite 4,1

*Industries du pétrole et du gaz naturel — Produits pour fluides  
de forage — Specifications et essais*  
**AMENDEMENT 1: Baryte 4,1**

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Reference number  
ISO 13500:2008/Amd.1:2010(E)

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## ISO 13500:2008/Amd.1:2010(E)

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Published in Switzerland



## 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.

Amendment 1 to ISO 13500:2008 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 3, *Drilling and completion fluids, and well cements*.

Amendment 1 to ISO 13500:2008<sup>1)</sup> covers the physical properties and testing of the newly available drilling fluid product, Barite 4,1. It constitutes an alternative to the specifications of Clause 7<sup>2)</sup>, which cover the physical properties and testing of Barite, and is not intended to replace Clause 7.

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- 1) Amendment 1 to ISO 13500:2008 also constitutes Amendment 1 to API Specification 13A.
  - 2) ISO 13500:2008, Clause 7, is equivalent to API Specification 13A, Section 7.

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# Petroleum and natural gas industries — Drilling fluid materials — Specifications and tests

## AMENDMENT 1: Barite 4,1

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Add the following new clause immediately after Subclause 19.8.3.

### 20 Barite 4,1

#### 20.1 Principle

**20.1.1** Drilling grade barite is produced from commercial barium sulfate-containing ores. The manufacturer shall retain certificates of analysis or similar documentation on these commercial barium sulfate ores. It may be produced from a single ore or a blend of ores and may be a straight-mined product or processed by beneficiation methods, i.e. washing, tabling, jigging, or flotation. It may contain accessory minerals other than the barium sulfate ( $\text{BaSO}_4$ ) mineral. Because of mineral impurities, commercial barite may vary in colour from off-white to grey to red or brown. Common accessory minerals are silicates such as quartz and chert, carbonate compounds such as siderite and dolomite, and metallic oxide and sulfide compounds. Although these minerals are normally insoluble, they can, under certain conditions, react with other components in some types of drilling fluids and cause adverse changes in the drilling fluid properties. (See Annex A for more details.)

**20.1.2** Drilling grade barium sulfate meeting the Barite 4,1 physical and chemical specifications listed in Table 19 is not intended to meet the requirements of performance tests described in ISO and API publications. Additionally, it is not intended to be used as a reference or calibration material as specified in ISO and API publications.

**20.1.3** End users should be aware that the material described in this clause has a lower density than Barite as specified in Clause 7. Drilling fluid formulations should be developed to accommodate this lower density material. Maximum practical drilling fluid density for specific formulations may be lower than attainable with Barite as specified in Clause 7.

**20.1.4** End users should review fluid engineering calculations to determine where density differences between Barite 4,1, as specified in this clause, and Barite, as specified in Clause 7, will require revisions to these calculations.

**20.1.5** Barite 4,1 shall be deemed to meet the requirements of this International Standard if a composite sample representing no more than one day's production conforms to the chemical and physical specifications of Table 19, represents the product produced, and is controlled by the manufacturer.