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Oil and gas industries including lower carbon energy — Completion fluids and materials —

Part 8: Measurement of properties of coated proppants used in hydraulic fracturing

Industries du pétrole et du gaz, y compris les énergies à faible teneur en carbone — Fluides de complétion et matériaux —

Partie 8: Mesurage des propriétés des agents de soutènement enrobés utilisés dans la fracturation hydraulique

Reference number
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Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Sampling procedures for coated proppants **1**
4.1 General 1
4.2 Particle segregation 2
4.3 Equipment 2
4.4 Number of coated proppant samples — bulk 5
4.5 Sampling —bulk coated proppants 5
4.6 Sampling — bagged coated proppants 5
4.6.1 Bags up to 50 kg each 5
4.6.2 Totes, bulk bags or super-sags weighing up to 2 000 kg each 5

5 Samples handling and storage **6**
5.1 Sample reduction 6
5.2 Sample splitting 6
5.3 Sample record retention and storage 6

6 Performance test on precured coated proppants **6**
6.1 Dispersion rate 6
6.1.1 Purpose 6
6.1.2 Description 6
6.1.3 Equipment and materials 6
6.1.4 Sample preparation 7
6.1.5 Procedures 8
6.2 Wear loss 8
6.2.1 Purpose 8
6.2.2 Description 8
6.2.3 Equipment and materials 8
6.2.4 Procedures 9

7 Performance test on curable coated proppants **10**
7.1 Thermal tensile strength 10
7.1.1 Purpose 10
7.1.2 Description 10
7.1.3 Equipment and materials 10
7.1.4 Procedures 10
7.2 Curable melting point 11
7.2.1 Purpose 11
7.2.2 Description 11
7.2.3 Equipment and materials 11
7.2.4 Procedures 12
7.3 Compressive strength 12
7.3.1 Purpose 12
7.3.2 Description 12
7.3.3 Equipment and materials 12
7.3.4 Procedures 12

Annex A (Informative) **Sieve calibration** **14**

Annex B (Informative) **The wear device and formula** **17**

Annex C (Informative) **Core preparation unit** **19**

Annex D (Informative) **Core preparation method** **25**

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Bibliography **28**

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC *67, Oil and gas industries including lower carbon energy*, Subcommittee SC 3, *Drilling and completion fluids, well cements and treatment fluids.*

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Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document is intended to be used together with ISO 13503-2 and ISO 13503-5.

The procedures have been developed to improve the quality of coated proppants delivered to the well site. They are for use in evaluating certain physical properties of the coated proppants used in hydraulic fracturing operation. These tests enable users to compare the physical characteristics of various proppants tested under the described conditions and to select materials useful for hydraulic fracturing operation.

This document is only available for evaluating the effectiveness of coated proppants. For sieve analysis, mean diameter, roundness, sphericity, bulk density, absolute density, proppant crush-resistance, and loss on ignition of resin-coated proppant, refer to ISO 13503-2; and for conductivity of proppants, refer to ISO 13503-5.

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Oil and gas industries including lower carbon energy — Completion fluids and materials —

Part 8: Measurement of properties of coated proppants used in hydraulic fracturing

1 Scope

This document provides test procedures for evaluating coated proppants used in hydraulic fracturing operation.

This document provides a consistent methodology for tests performed on coated proppants used in hydraulic fracturing operations.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
coated proppant
solid particle used in hydraulic fracturing that is coated with a layer of resin or other material

3.2
precured coated proppant
solid particle that can be cured or hardened during the manufacturing process

3.3
curable coated proppant
solid particle that can be cured or hardened after being placed in the fracture

4 Sampling procedures for coated proppants

4.1 General

Before any sample is taken, consider what tests will be performed, as each test require different volumes. Both the supplier and the customer should obtain the best representative sample possible. Unless the sample is truly representative of a total shipment or container, testing and correlation with specifications or standards is very difficult. It is unlikely that sampling/testing methods in field duplicate the producer's system. The standard procedures included within this document assist in obtaining representative samples.

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