



BSI Standards Publication

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

Part 2: Measurement of properties of proppants used in hydraulic fracturing and gravel-packing operations

This is a preview of BS EN ISO 13503-2:2024. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN ISO 13503-2:2024. It is identical to ISO 13503-2:2024. It supersedes BS EN ISO 13503-2:2006+A1:2009, which is withdrawn.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 committee manager.

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Öl- und Gasindustrie einschließlich kohlenstoffarmer Energieträger - Komplettierungsflüssigkeiten und Materialien - Teil 2: Messung der Eigenschaften von Stützmaterialien zum Einsatz bei hydraulischen Fraktionierungs- und in Kiespackungsvorgängen (ISO 13503-2:2024)

This European Standard was approved by CEN on 14 December 2024.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN ISO 13503-2:2024) has been prepared by Technical Committee ISO/TC 67 "Oil and gas industries including lower carbon energy" in collaboration with Technical Committee CEN/TC 12 "Oil and gas industries including lower carbon energy" the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by June 2025, and conflicting national standards shall be withdrawn at the latest by June 2025.

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

This document supersedes EN ISO 13503-2:2006.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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Endorsement notice

The text of ISO 13503-2:2024 has been approved by CEN as EN ISO 13503-2:2024 without any modification.

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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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 12, *Oil and gas industries including lower carbon energy*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 13503-2:2006), which has been technically revised. It also incorporates the Amendment ISO 13503-2:2006/Amd 1:2009.

This document supplements API Std 19C, 2nd edition (2018).

The technical requirements of this document and API Std 19C used to be identical. In the meantime API Std 19C has been technically revised as API Std 19C, 2nd edition (2018). The purpose of this edition of ISO 13503-2 is to bring it up to date, by referencing the current edition of API Std 19C and including supplementary content.

The main changes are as follows:

- a new stand sampling device has been used for proppant packed in bags;
- proppant on the sieves has been removed and directly weighed in sieve analysis testing;
- the average diameter calculation has been added;
- the remaining total amount on the last sieve and in the pan has been updated to not exceed 2 % by mass of the total tested proppant sample;
- PropPaver loading device has been used instead of Pluviator loading device;
- the upper and lower designating sieve sizes have been kept for sample preparation and after pressurizing in crush resistance test;
- shaking duration of 10 min has been maintained for both sample preparation and after pressurizing in crush resistance test.

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

Part 2: Measurement of properties of proppants used in hydraulic fracturing and gravel-packing operations

1 Scope

This document provides testing procedures for evaluating proppants used in hydraulic fracturing and gravel packing operations.

NOTE Proppants mentioned in this document refer to sand, ceramic, resin-coated, gravel packing proppants, and other materials used for hydraulic fracturing and gravel packing operations.

This document supplements API Std 19C, 2nd edition (2018), the requirements of which are applicable with the exceptions specified in this document.

This document provides consistent methodology for testing performed on hydraulic fracturing and/or gravel packing proppants.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

API Std 19C, 2nd edition (2018), *Measurement of and Specifications for Proppants Used in Hydraulic Fracturing and Gravel-packing Operations*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in API Std 19C, 2nd edition (2018) and the following 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

PropPaver

loading device for laying out proppant samples for crush resistance test, primarily used to ensure the proppant pack laid flat within the crush cell, and reducing the potential for operator-induced variability