



# SLOVENSKI STANDARD SIST-TS ISO/TS 22171:2024

01-junij-2024

---

**Kakovost tal - Določanje potencialne kationske izmenjalne kapacitete (CEC) in izmenljivih kationov z uporabo pufrske raztopine amonijevega acetata s pH 7**

Soil quality - Determination of potential cation exchange capacity (CEC) and exchangeable cations buffered at pH 7, using a molar ammonium acetate solution

Qualité du sol - Détermination de la capacité d'échange cationique (CEC) potentielle et de la teneur en cations échangeables, à l'aide d'une solution molaire d'acétate d'ammonium tamponnée à pH 7

**Ta slovenski standard je istoveten z: ISO/TS 22171:2023**

[SIST-TS ISO/TS 22171:2024](https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024)

<https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024>

**ICS:**

|           |                          |                                   |
|-----------|--------------------------|-----------------------------------|
| 13.080.10 | Kemijske značilnosti tal | Chemical characteristics of soils |
|-----------|--------------------------|-----------------------------------|

**SIST-TS ISO/TS 22171:2024**

**en,fr,de**



TECHNICAL  
SPECIFICATION

ISO/TS  
22171

First edition  
2023-12

---

---

**Soil quality — Determination of  
potential cation exchange capacity  
(CEC) and exchangeable cations  
buffered at pH 7, using a molar  
ammonium acetate solution**

*Qualité du sol — Détermination de la capacité d'échange cationique  
(CEC) potentielle et de la teneur en cations échangeables, à l'aide  
d'une solution molaire d'acétate d'ammonium tamponnée à pH 7*

iteh Standards

(<https://standards.iteh.ai>)

Document Preview

[SIST-TS ISO/TS 22171:2024](https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024)

<https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024>



Reference number  
ISO/TS 22171:2023(E)

© ISO 2023

**ISO/TS 22171:2023(E)**

# iTeh Standards (<https://standards.iteh.ai>) Document Preview

[SIST-TS ISO/TS 22171:2024](https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024)

<https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024>



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2023

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

|   |          |
|---|----------|
| Foreword.....   | iv       |
| Introduction.....   | v        |
| <b>1 Scope.....</b>   | <b>1</b> |
| <b>2 Normative references.....</b>                                      | <b>1</b> |
| <b>3 Terms and definitions.....</b>                                     | <b>1</b> |
| <b>4 Principle.....</b>   | <b>1</b> |
| <b>5 Reagents.....</b>  | <b>1</b> |
| <b>6 Apparatus.....</b>   | <b>3</b> |
| <b>7 Laboratory samples.....</b>  | <b>4</b> |
| <b>8 Procedure.....</b>   | <b>4</b> |
| 8.1 Test portion.....   | 4        |
| 8.2 Extraction step.....  | 4        |
| 8.3 Ammoniacal nitrogen assay by continuous flow spectrophotometry..... | 5        |
| 8.3.1 Apparatus set-up.....   | 5        |
| 8.3.2 Assays.....   | 6        |
| 8.4 Expression of results.....  | 7        |
| <b>9 Test report.....</b>   | <b>7</b> |
| <b>Bibliography.....</b>  | <b>8</b> |

iTeh Standards  
(<https://standards.iteh.ai>)  
Document Preview

[SIST-TS ISO/TS 22171:2024](https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024)

<https://standards.iteh.ai/catalog/standards/sist/0dce6739-49fa-441a-8bb9-f4a67ad269da/sist-ts-iso-ts-22171-2024>

## ISO/TS 22171:2023(E)

### 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.

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](http://www.iso.org/directives)).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 3, *Chemical and physical characterization*.

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](http://www.iso.org/members.html).