



Methods of testing soils for engineering purposes

Method 6.6.1: Soil strength and consolidation tests — Determination of the one-dimensional consolidation properties of a soil — Standard method



AS 1289.6.6.1:2020

This Australian Standard® was prepared by CE-009, Testing Of Soils For Engineering Purposes. It was approved on behalf of the Council of Standards Australia on 5 June 2020.

This Standard was published on 26 June 2020.

The following are represented on Committee CE-009:

- Australian Building Codes Board
- Australian Chamber of Commerce and Industry
- Australian Geomechanics Society
- Austroads
- Cement Concrete & Aggregates Australia — Aggregates
- Engineering & Construction Laboratories Association
- Engineers Australia
- National Association of Testing Authorities Australia
- The University of Melbourne
- The University of Sydney
- Victorian Construction Materials Laboratories Association

This Standard was issued in draft form for comment as DR AS 1289.6.6.1:2019.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

ISBN 978 1 76072 875 5



Methods of testing soils for engineering purposes

Method 6.6.1: Soil strength and consolidation tests — Determination of the one-dimensional consolidation properties of a soil — Standard method

Originated as AS A89.19A—1966.
Previous edition AS 1289.F6.1—1977.
Revised and redesignated as AS 1289.6.6.1—1998.
Second edition 2020.

COPYRIGHT

© Standards Australia Limited 2020

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Preface

This Method was prepared by the Standards Australia Committee CE-009, Testing of Soils for Engineering Purposes, to supersede AS 1289.6.6.1—1998, *Methods of testing soils for engineering purposes, Method 6.6.1: Soil strength and consolidation tests—Determination of the one-dimensional consolidation properties of a soil—Standard method*.

A list of all test methods in the AS 1289 series can be found in the Standards Australia online catalogue.

The objective of this Standard is to determine the rate and magnitude of consolidation of soil when it is restrained laterally and loaded and drained axially, using either manual loading or automated equipment. The Method is most reliable when used on saturated clay soils. For these soils, the rate of consolidation is sufficiently slow for results to be correctly interpreted following the procedures set out in this Standard.

The major change in this edition is allowing for the use of automated apparatus in the performance of the test.

Contents

Preface	ii
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Apparatus	1
5 Calibration of consolidation apparatus	2
6 Preparation of specimens	2
7 Procedure	3
8 Calculations	6
8.1 Deformation/time properties	6
8.1.1 General	6
8.1.2 Log/time method	6
8.1.3 Square root/time method	7
8.2 Deformation/load properties	8
9 Test report	10
Bibliography	11

NOTES