

[Peter Claisse's home page](#)

Transport Properties of Concrete

Modelling the Durability of Structures.

Second Edition

Peter A. Claisse

Woodhead Publishing series in Civil and Structural Engineering,
Woodhead Publishing is an imprint of Elsevier,
The Officers' Mess Business Centre, Royston Road, Duxford, CB22 4QH, United Kingdom
50 Hampshire Street, 5th Floor, Cambridge, MA 02139, United States
The Boulevard, Langford Lane, Kidlington, OX5 1GB, United Kingdom

ISBN: 978-0-12-820249-4 (print)

ISBN: 978-0-12-822678-0 (online)

A research monograph published 20 November 2020

[order from Amazon UK](#) [order from Elsevier](#)

Synopsis

Transport Properties of Concrete covers how to measure transport properties and how to use the results to model performance. The transport properties of concrete are measurements of the ability of ions and fluids to move through the material. These properties largely determine the durability of concrete and of steel embedded within it, as well as the effectiveness of structures such as waste containment barriers.

In this fully updated second edition, *Transport Properties of Concrete*:

- Shows how properties such as permeability which are needed for modelling may be derived from insitu tests on structures.
- Discusses the problems that occur when carrying out transport tests on concrete incorporating both traditional and newer cement replacements
- Includes a new chapter on modelling the durability of concrete structures showing how both diffusion and pressure driven flow should be included.

Transport properties of concrete provides a comprehensive examination of the subject and will be of use to all concerned with the durability and effectiveness of concrete structures.

About the Author

Professor Peter A. Claisse MA PhD CEng. FInstCE is an Emeritus Professor of Construction Materials at Coventry University, UK. He gained his B.A. in Physics from Oxford University in 1975 and then spent the next nine years working as a civil engineering on major UK construction sites. He currently works as a consultant on durability modelling for the design of major concrete structures. A systemised presentation of key research he has published in a number of different journals is included in this book.

By the same author: [Civil Engineering Materials](#)