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Soggetti	Engineering design Amorphous substances Complex fluids Materials science Medical physics Radiation Building materials Engineering Design Soft and Granular Matter, Complex Fluids and Microfluidics Characterization and Evaluation of Materials Medical and Radiation Physics Building Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Brief Review of the Membrane Structure Context -- The design, analysis and construction of tensile fabric structures -- Biaxial testing apparatuses and procedures -- The development of biaxial testing devices and procedures for architectural fabrics -- Recent application and potentialities -- Conclusions.

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## Sommario/riassunto

This book offers a well-structured, critical review of current design practice for tensioned membrane structures, including a detailed analysis of the experimental data required and critical issues relating to the lack of a set of design codes and testing procedures. The technical requirements for biaxial testing equipment are analyzed in detail, and aspects that need to be considered when developing biaxial testing procedures are emphasized. The analysis is supported by the results of a round-robin exercise comparing biaxial testing machines that involved four of the main research laboratories in the field. The biaxial testing devices and procedures presently used in Europe are extensively discussed, and information is provided on the design and implementation of a biaxial testing rig for architectural fabrics at Politecnico di Milano, which represents a benchmark in the field. The significance of the most recent developments in biaxial testing is also explored.

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