1. Record Nr. UNINA9910807158603321 Lightweight sandwich construction / / edited by J.M. Davies Titolo Oxford: Malden, MA.: Blackwell Science, c2001 Pubbl/distr/stampa **ISBN** 1-281-31973-2 9786611319731 0-470-69025-9 0-470-77996-9 Edizione [1st ed.] Descrizione fisica 1 online resource (386 p.) Altri autori (Persone) DaviesJ. M Disciplina 624.1/779 624.1779 Soggetti Sandwich construction Lightweight construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "Published on behalf of CIB Working Commission, W056 Sandwich Note generali Panels (joint CIB-ECCS commission)." Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Contents; List of Contributors; Preface; 1 Introduction; 1.1 The origins of sandwich technology; 1.2 Principles of sandwich construction; 1.3 Requirements for sandwich cladding panels; 1.4 Wall panels; 1.5 Panels for cold stores; 1.6 Roof panels; 1.7 Methods of manufacture; 1.7.1 Manufacture of facings; 1.7.2 Panels with bonded cores; 1.7.3 Foamed cores; 1.8 Design requirements for structural sandwich panels; 1.9 Structural design of sandwich panels; 1.10 Layout of this book; 2 Materials; 2.1 Introduction; 2.2 Facing materials; 2.2.1 Steel facings; 2.2.2 Aluminium sheeting 2.2.3 Other metal face materials 2.2.4 Other facing materials; 2.3 Core materials; 2.3.1 Rigid plastic foam materials; 2.3.2 Characteristic properties of rigid foams; 2.3.3 Inorganic core material; 2.3.4 Characteristic properties of mineral wools; 2.4 Honeycomb cores; 2.5 Adhesives and other components; 2.5.1 Mechanical properties; 2.6 Fasteners and other components; 2.7 References; 3 Thermal Performance and Water-Tightness; 3.1 Introduction; 3.2 Insulation theory: 3.2.1 Factors influencing the thermal conductivity of a material: 3.3 Thermal resistance

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Sommario/riassunto

Sandwich panels are being used increasingly as the cladding of buildings like factories, warehouses, cold stores and retail sheds. This is because they are light in weight, thermally efficient, aesthetically attractive and can be easily handled and erected. However, to date, an authoritative book on the subject was lacking. This new reference work aims to fill that gap. The designer, specifier and manufacturer of sandwich panels all require a great deal of information on a wide range of subjects. This book was written by a group of European experts under the editorship of a UK specialist