1. Record Nr. UNINA9910141468703321 Autore Hens Hugo Titolo Performance based building design 2 [[electronic resource]]: from timber-framed construction to partition walls / / Hugo Hens Berlin, : Ernst & Sohn, 2013 Pubbl/distr/stampa 3-433-60251-4 **ISBN** 1-299-18674-2 3-433-60248-4 3-433-60249-2 Descrizione fisica 1 online resource (293 p.) Disciplina 690 Soggetti Architecture Buildina Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references. Nota di bibliografia Nota di contenuto Title; Preface; Table of Contents; 0 Introduction; 0.1 Subject of the book; 0.2 Units and symbols; 0.3 References and literature; 1 Timberframed construction; 1.1 In general; 1.2 Performance evaluation; 1.2.1 Structural integrity: 1.2.2 Building physics: heat, air, moisture: 1.2.2.1 Air tightness; 1.2.2.2 Thermal transmittance; 1.2.2.3 Transient response; 1.2.2.4 Moisture tolerance; 1.2.2.5 Thermal bridges; 1.2.3 Building physics: acoustics: 1.2.4 Durability: 1.2.5 Fire safety: 1.2.6 Maintenance; 1.3 Design and execution; 1.3.1 Above grade; 1.3.2 Frame: 1.3.3 Thermal insulation 1.3.4 Air and vapour retarder1.3.5 Building paper; 1.3.6 Variants; 1.4 References and literature; 2 Sheet-metal outer wall systems; 2.1 In general; 2.2 Performance evaluation; 2.2.1 Structural integrity; 2.2.2 Building physics: heat, air, moisture; 2.2.2.1 Air tightness; 2.2.2.2 Thermal transmittance; 2.2.2.3 Transient response; 2.2.2.4 Moisture

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Sommario/riassunto

Just like building physics, performance based building design was hardly an issue before the energy crises of the 1970ies. With the need to upgrade energy efficiency, the interest in overall building performance grew. This work published in two volumes, applies the performance rationale, advanced in applied building physics, to the design and construction of buildings. In continuation of Vol. 1 this volume discusses light-weight construction with wooden and metal elements, roofing systems, fa? ades, and ends with finishes and the overall risk analysis. Most chapters build on a same scheme: o