1. Record Nr. UNINA9911019158803321 Autore Kim Moon G Titolo Adhesives and Finishes for Wood: For Practitioners and Students Pubbl/distr/stampa Newark:,: John Wiley & Sons, Incorporated,, 2023 ©2024 **ISBN** 9783527842780 3527842780 9783527842766 3527842764 Edizione [1st ed.] Descrizione fisica 1 online resource (562 pages) Disciplina 684.08 Soggetti Adhesives Wood finishing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Cover -- Title Page -- Copyright -- Contents -- Preface -- Author Nota di contenuto Biography -- Chapter 1 Introduction to Polymers, Wood Adhesives, and Wood Finishes -- 1.1 Good Wood Adhesives Must Be Optimum Polymers with Optimum Secondary Forces -- 1.2 Polymeric Materials --1.3 Synthetic Polymer Preparation Methods -- 1.4 Typical Synthetic Polymer Materials -- 1.5 Typical Natural Polymers -- 1.6 Summary --References -- Chapter 2 Principles of Polymer Chemistry for Wood Adhesives and Finishes -- 2.1 Degree of Polymerization and Molecular Weight -- 2.1.1 Determination of Molecular Weight or Degree of Polymerization -- 2.2 Properties of Polymer Solutions or Suspensions -- 2.2.1 Viscosity of Polymer Solutions -- 2.2.2 Dependence of Viscosity on the Shear Rate (Stirring Rate) -- 2.2.3 Temperature Dependence of Viscosity of Polymer Solutions -- 2.2.4 Dependence of Viscosity on the Concentration and Molecular Weight of Dissolved Polymers -- 2.2.5 Methods of Viscosity Measurement of Liquid

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## Sommario/riassunto

This book serves as a comprehensive guide to wood adhesives and finishes, offering detailed insights into polymer chemistry and its application in the field. Authored by Professor Moon G. Kim, it delves into the principles of thermosetting and thermoplastic wood adhesives, covering a range of resins including UF, MUF, PF, and isocyanate. The work explores the manufacturing processes and application methods for various wood products such as medium density fiberboard, plywood, and furniture assemblies. Additionally, it discusses the theory and practical aspects of adhesive bonding and evaluates the durability and quality of wood adhesive bonds. Aimed at practitioners and students in the wood adhesives and forest products industries, this book provides essential knowledge for those with a background in science and engineering.