

PLYWOOD

WHAT IT IS -
WHAT IT DOES

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PREFACE

This book is an attempt to present plywood factually and authoritatively to engineers, industrial designers, architects, purchasing agents, woodworkers, students, and all other craftsmen or users who wish to explore the possibilities offered by plywood for revising and improving established structural forms. Conceived as a new approach to the subject, the book covers the physical properties and end uses of plywood and a number of kindred laminates and sets forth their composition, structural elements, and mechanical characteristics so that the user can specify these products for, and adapt them intelligently to, whatever project he has in hand.

Included also is a comprehensive, if not exhaustive, report on the various bonding agents that form an integral and highly critical element of plywood composition and application. In addition, basic engineering data are offered for the species of wood most frequently utilized in the manufacture of plywood.

Following the First World War, plywood had attained eminence in certain fields. Under the stresses of the Second World War the basic product was materially improved, and several new products and processes were devised that opened up many new fields of application as an adequate, if not superior, replacement for scarce materials. Today plywood is a factor in the manufacture of every product that requires a combination of strength, lightness, and durability. This book surveys all these improvements and developments and discusses still further applications for peacetime construction and manufacturing processes.

Practically all of the material here assembled, with the exception of the summary of plywood manufacturing processes, is unique in a book of this kind. Much material hitherto available only in scattered references is now offered in one place for accessibility. The 24 plates illustrating various types of veneer faces have never before been assembled as a unit. Laminated-paper plastics, glued laminated timbers, honeycomb structures, and metal-faced panels have been dealt with in trade journals, but are now, for the first time, discussed within the broad outlines of a "family" of laminates.

Manufacturing processes are referred to only insofar as they apply to the end-use characteristics of the product. Emphasis is laid primarily on the physical properties of the materials so that prospective users can understand the nature of the products and determine in advance the type and construction best suited to their requirements.

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Owing to the diversity of variations to which plywood and its kindred laminates are subject, this book can not be regarded as a complete exposition of the subject. Reference is made to the bibliography and to the engineering and laboratory staffs of the several major plywood and adhesive manufacturers for detailed information on specific items.

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