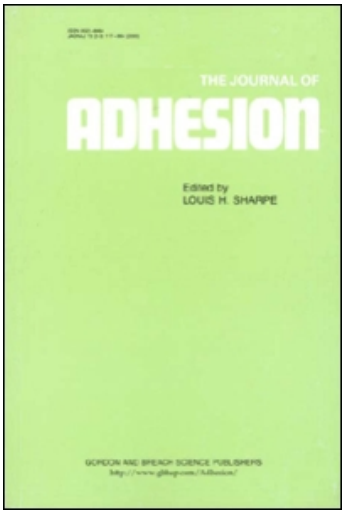

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A Review of: "TEXTILE REINFORCEMENT OF ELASTOMERS, Editors William C. Wake and David B. Wootton, Applied Science Publishers Ltd. London and New Jersey, 1982, 271 pp."

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Book Review

TEXTILE REINFORCEMENT OF ELASTOMERS, Editors William C. Wake and David B. Wootton, Applied Science Publishers Ltd. London and New Jersey, 1982, 271 pp.

Editors Wake and Wootton have assembled an excellent introductory text on the material, design, manufacturing, and economic considerations involved in the production of textile reinforced elastomeric articles. While this book consists of nine chapters by six different authors, it is not a collection. Rather it is a carefully designed description of flexible composite structures developed from the perspective of textile science. This perspective provides organization, definition, and continuity to the text. Thus, contrary to what one might expect from the title, very few words are devoted to the chemistry or properties of elastomers. And for space considerations, design and structural details relating specifically to tires are omitted. The scope of this book is limited to textile properties, textile structures, textile-to-elastomer bonding, and the application of these principles in the structure and design of fiber reinforced elastomeric articles other than tires.

The book can be considered as having two sections. The first five chapters were all contributed by the editors. These chapters provide information of general applicability to all textile reinforced elastomers. A brief, historical account of the parallel yet independent developments of the textile and rubber industries is featured in chapter one. This is followed by chapters on the production and properties of textile yarns, the preparation and design of textile structures, the heat setting and adhesive treatments of textiles for rubber reinforcement, and peel performance and other assessments of elastomer-to-textile adhesion. In these chapters chemical, material science, and manufacturing principles are combined to yield a solid foundation of knowledge and provide an exceptionally practical introduction to this field.

Each of the last four chapters focuses on a specific class of textile reinforced elastomeric product. And each draws on the foundation of the first five chapters to explain the principles of design and construction followed in product manufacture. The products discussed are conveyor belting, hoses, marine applications, and power transmission belts.

Textile Reinforcement of Elastomers is an ideal text for those seeking a textile-oriented introduction to this commercially important field. The written discussions are supported by sixty-four illustrations. Yet there are still sections, such as those which describe the operation of manufacturing equipment, where the reader's ability to follow the text could be improved by additional figures. This minor point does not detract from the usefulness of this volume.

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