

This article was downloaded by:

On: 22 January 2011

Access details: *Access Details: Free Access*

Publisher *Taylor & Francis*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



The Journal of Adhesion

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713453635>

A review of: "STRUCTURAL ADHESIVES WITH EMPHASIS ON AEROSPACE APPLICATIONS. Marcel Dekker Publ., New York, 1976. 244 pp. (\$24.50)"

J. J. Bikerman

To cite this Article Bikerman, J. J.(1976) 'A review of: "STRUCTURAL ADHESIVES WITH EMPHASIS ON AEROSPACE APPLICATIONS. Marcel Dekker Publ., New York, 1976. 244 pp. (\$24.50)"', *The Journal of Adhesion*, 8: 3, 261

To link to this Article: DOI: 10.1080/00218467608075088

URL: <http://dx.doi.org/10.1080/00218467608075088>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Book Review

STRUCTURAL ADHESIVES WITH EMPHASIS ON AEROSPACE APPLICATIONS. Marcel Dekker Publ., New York, 1976. 244 pp. (\$24.50)

This is a reproduction of a report submitted to the Department of Defence by a special Committee of the National Materials Advisory Board in July 1974 and declared "unclassified".

Chapter 2 summarizes the conclusions and recommendations more amply justified in the following chapters on (3) Current and future service applications—(4) Structural adhesives development—(5) Interfacial aspects of structural adhesive bonding—(6) Manufacturing and processing—(7) Behavior of polymeric adhesives in joints—(8) Design, analysis, and test methods—(9) Performance and reliability—(10) Technology transfer and utilization.

Several questions may be raised in respect to this publication. Did the Committee's work prove useful to the employer? Presumably, we shall never know the answer to this query. Is the report technically and scientifically sound? Here an answer is possible. The scientific level is not uniform, probably because different members of the Committee advocated different approaches. Thus, chapter 7 is based on the notion that failure within the adhesive film is more common than that in apparent adhesion and, that, consequently, "the behavior of the adhesive material in the joint must assume a critical . . . role" (p. 123). On the other hand (p. 75) it is stated that contact angle (θ) measurements are significant because there is a fundamental relation between θ and the thermodynamic work of adhesion. No relation, if any, is pointed out between this work and the above behavior of the adhesive material.

The next two questions are closely related. Was it advisable to publish the report as a book? What kind of readers is the book intended to serve? The reviewer was unable to define the prospective readership. Thus, pages 194–206 give a mathematical treatment of cumulative damage, which would not appeal to a practical user of structural adhesives, whereas, only a few pages later, he is provided with a list of periodicals on adhesive joints, a list of information centers, a recommendation to write a design handbook for these materials (p. 221), and so forth.

The volume is reproduced from a typewritten text and the margins are not justified.

J. J. BIKERMAN