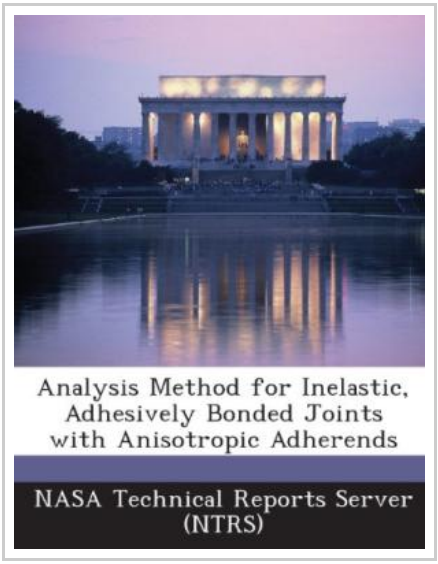

Analysis Method for Inelastic, Adhesively Bonded Joints with Anisotropic Adherends

By -

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 22 pages. Dimensions: 9.7in. x 7.4in. x 0.1in.A one-dimensional analysis method for evaluating adhesively bonded joints composed of anisotropic adherends and adhesives with nonlinear material behavior is presented in the proposed paper. The strain and resulting stress field in a general, bonded joint overlap are determined by using a variable-step, finite-difference solution algorithm to iteratively solve a system of first-order differential equations. Applied loading is given by a system of combined extensional, bending, and shear forces that are applied to the edge of the joint overlap. Adherends are assumed to behave as linear, cylindrically bent plates using classical laminated plate theory that includes the effects of first-order transverse shear deformation. Using the deformation theory of plasticity and a modified von-Mises yield criterion, inelastic material behavior is modeled in the adhesive layer. Results for the proposed method are verified against previous results from the literature and shown to be in excellent agreement. An additional case that highlights the effects of transverse shear deformation between similar adherends is also presented. This item ships from La Vergne,TN. Paperback.

Reviews

The ebook is straightforward in go through preferable to recognize. It typically does not charge too much. Its been designed in an exceptionally straightforward way and it is just following i finished reading this book where basically altered me, affect the way i really believe.

-- ***Dr. Reta Murphy***

It becomes an amazing pdf which i actually have at any time read through. This can be for all those who statte there had not been a worthy of reading through. You wont sense monotony at anytime of your own time (that's what catalogues are for relating to should you check with me).

-- ***Claud Kris***