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Evaluation of the Elastic Mechanical Properties of a Hybrid Adhesive Material

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Abstract : Adhesive materials and adhesion have been the focal point of multiple research works related to numerous applications, particularly, aerospace, and aviation industries. To enhance the properties of conventional adhesive materials, additives have been introduced to the mix in order to enhance their mechanical and physical properties by creating a hybrid adhesive material. The evaluation of the mechanical properties of such hybrid adhesive materials is thus of an essential requirement for the purpose of properly modeling their behavior accurately. This paper presents an approach/tool to simulate the behavior such hybrid adhesives in a way that will allow researchers to better understand their behavior while in service.

Keywords : adhesive materials, analysis, hybrid adhesives, mechanical properties, simulation
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