

[Mechanical Behavior of a Sandwich Composite with Cardboard Core Reinforced Fabric](#)

Authors

K Saidani, Kamal Ait Tahar, S Merakeb

Publication date

2013

Conference

Advanced Materials Research

Volume

682

Pages

9-16

Publisher

Trans Tech Publications Ltd

Description

A sandwich structure is obtained from two skins or soles, with good mechanical characteristics, bonded to a core made of a lightweight material of low resistance. Glued to a core made of a lightweight material of low resistance. The strength and modulus of elasticity of the skin condition the bending behavior of a sandwich. Bending, the skins of the sandwich are solicited in traction and in compression, while the core is subjected to shear. Our study focuses on the experimental characterization under flexural load of new composite sandwich combined. The sandwich proposed constituted of two skins armed by metal grids impregnated with epoxy matrix type STR and souls composed of hybrid corrugated cardboard reinforced by fabric. Several configurations of souls made from cardboard cellulosic and fabrics were taken into account. An experimental and numerical investigation is conducted to analyze the behavior of ...