CLBA2012
8 e 9 de novembro
Rio de Janeiro, Brasil
Associação Brasileira de Adesão e Adesivos - ABAA
Associação Portuguesa de Adesão e Adesivos - APAA
http://clba.cefet-rj.br

Mineral Filler Incorporation to Solvent Based Adhesives and Characterization of Rheological and Adhesive Properties

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Calcium carbonate is naturally abundant worldwide as mineral calcite. It is commonly used as an additive in the manufacture of various compounds such as rubbers and plastics, usually to reduce costs. The goal of this article is to study the addition of this mineral filler in solvent based adhesives. The method used was to introduce different percentages of calcium carbonate in a solid state mixture and then dissolved the mix in solvent. For the solid blend, natural rubber and colophony resin were used as raw materials. Adhesion and rheological properties were analyzed. The results showed similar behavior between original and modified adhesives. Therefore, the calcium carbonate could be used as a raw material without modifying properties, and reducing the cost of the adhesive.

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