

Abstract – Biocomposites Conference Cologne 6.-7.12.2017

## SHELLAC – A Unique Natural Thermoplastic Resin for Biocomposites

Shellac, the only commercially used biopolymer of insect origin that meets today's requirements for GREEN chemicals of natural and renewable origin and nontoxic and biodegradable properties. Furthermore, it has a number of interesting properties for the application of thermoplastic and after polymerisation thermosetting binders of Biocomposites. It can be used from alcoholic or aqueous solutions in a matrix for natural fibers ( Jute, flax, hemp,etc.) as well as for glass and carbon fibers. Plasticisers, curing agents, flame retardant additives, etc can be added to the solution. Easy processing, good mechanical and excellent dielectric properties as well as UV stability and resistance to hydrocarbons are also important for uses in Biocomposites.

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