
Nanocellulose based adhesives for wood products

The goal of the project is to valorize the pulp fiber rejects from the pulp and paper industry into nanoscale fibers of high mechanical performance for use as reinforcement and formaldehyde scavenger in traditional wood adhesives and coatings. It is expected that the modification with cellulose nanowhiskers will dramatically improve mechanical performance and indoor air quality via VOC emission reductions of traditional wood composites.

The project is divided into three different tasks:

Task 1: Qualitative and quantitative evaluation of cellulosic by-products from different steps chemical pulping and paper making for the production of nanocellulose

Task 2: Development of the technology for the production of high performance aminoplast adhesives containing nanocellulose

Task 3: Proof of application of the high performance aminoplast adhesives for the production of fiberboards and coatings

Title of project: Herstellung umweltfreundlicher Hochleistungsklebstoffe aus Abfallprodukten der Zellstoffindustrie (High performance wood adhesives based on by-products of the pulp and paper industry)

Support Program/Supported by/Sponsored by: Clusterinitiative Forst und Holz Baden-Württemberg, Ministerium für Ländlichen Raum und Verbraucherschutz (Baden-Württemberg)

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Partner: Papierzentrum Gernsbach, Laminate Park GmbH & Co. KG

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