Ostfalia
University of
Applied Sciences

Development of a highly-pure PVB recyclate for reuse in glass

Sub-project: Development of the chemical foundations and of analysis and measurement technology for the evaluation of cleaning results

Project management: Prof. Dr.-Ing. Achim Schmiemann

Summary: One characteristic of PVB is its splinter-free effect and high tensile strength. This is why it is often used as an intermediate layer in laminated safety glass (LSG). With flat glass recycling, significant amounts of contaminated PVB plastic films are accrued that cannot currently be adequately processed for reuse in glass. To date, the mechanically recycled PVB films have been used as low-priced additives for floor coverings made of PVC or other plastics.

The aim of the project is to develop a procedure for high-value recycling for reuse in original, optical applications in flat glass. The project involves purification, with the liberation of glass residue and the elimination of the yellow tint caused by exposure to UV light, so as to get high-purity PVB flakes as a starting product, for the production of films. This would enable massive savings of primary resources – and as a result, of CO2.

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Organisational unit: Faculty of Automotive Engineering

Research area: Vehicle Construction, Polymers and Materials Science

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