

MATTHIAS RENKA
Organik Kimya; NL-Rotterdam



NOVEL ACRYLIC PSA THAT ALLOWS EASY CELLULOSE-BASED MATERIAL RECYCLING

In the last decade sustainability became an important topic and a lot of solutions in the field of polymeric materials have been published and patented. Solutions ranging from biobased to degradable and compostable have been proposed. Among all the solutions recyclability appears to be the best feature a material should have, since it reduces pollutions, carbon emissions and it gives a second life to useful molecules. Cellulose-based materials are already fully recyclable and the whole recycling process, from the sorting to the new material production has been widely optimized. The major drawback of cellulose-based material recycling are the pollutants found in the recycled items.

In this work a novel acrylic-based Pressure Sensitive Adhesive (PSA) designed for packaging tape application is developed. The PSA synthesized, showed a good performance in packaging tape application and an excellent ability in allowing complete recycling of the cellulose fibers without affecting the production of new recycled materials.