

Contact:

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Highlights:

- Pilot line on nearly industrial scale for large trials and customer demonstration
- Team of professionals engaged in process engineering and chemistry
- Market entry by building an own industrial operation started

Cooperation:

- Equity Funding
- International Sales
- Project Financing
- Technology Cooperation

Awards:

- GreenTec Award 2014
- Innovation Award of the German Economy 2012

Management Team:

Thorsten Hornung – CEO

- Engineer, MBA
- 20 years experience in Business Development, Finance and Accounting, Business Process Improvement

Dr. Sebastian Kernbaum – CTO

- Engineer
- 10 years experience in recycling technology

Lars-Oliver Stock – COO

- Engineer, MBA
- 20 years experience in plant erection and operations

saperatec recovers more than 80% of materials from multilayer flexible packaging wastes and feeds them back into production.

A unique patented technology based on separation fluids is applied for the separation of multilayer materials – also having application fields in the electronic and automotive sector.

Problem:

- Currently, only a few recycling technologies exist for the value saving treatment of multilayer materials, e.g. multilayer packaging materials, beverage cartons, safety glasses, and composite materials in electronics applications. Valuable resources are lost for the life cycle economy.

Solution:

- Saperatec splits up the composite of multilayer products while detaching the bonding, coating or laminate to recover homogeneous, high-quality individual materials.

Business:

- Industrial plant operation for packaging recycling offering waste recycling services and marketing high quality secondary resources.
- Licensing models for global market reach and further application fields.

Technology/ IP:

- Recycling technology based on separation liquids
- They enter/diffuse into the bonding or coating of the multilayer material and enable a separation.
- For example, in the area of packaging materials and used beverage cartons, the technology will enable the separation of aluminium/plastic-composites to recover valuable aluminium and plastic fractions.
- The separation fluid, the process and the equipment are patented worldwide.

Market:

- In Europe alone, saperatec's solutions enable the recycling of more than 500.000 tons composite flexible packaging films and the recovery of polymers and aluminium for recirculation.
- Other future markets include the recovery of PVB-polymers from laminated safety glasses with more than 200.000 tons per anno in Europe as well as applications in electronics recycling.

Competition:

- Today's recycling processes for multilayer plastics focus on the thermal usage (pyrolysis and incineration). Regulatory requirements (recycling quota) can not be fulfilled.
- Direct competition lays in technology for dissolution of materials and/or chemical recovery of monomer structures. Plastics re-entering the market are then newly to be produced based on these intermediate products - creating another footprint of energy use and CO2 emission.
- All mentioned technologies have in common that they transform plastics and do not recover the plastics as secondary raw material (solid state) for direct use in product applications.