

## Sustainable raw materials for the coatings industry – opportunities from segregated supply chains versus mass balancing

- As coatings manufacturer Beckers is a formulator with a very complex raw material and direct supplier landscape. 70% of raw materials are specialty organic chemicals often going into many competing applications in other industries. Carbon is the major raw material which today is almost exclusively derived from fossil sources.
- Beckers considers sustainability as the most important innovator in our industry during the next 10 years. This will generate significant business opportunities. Our ambition is to lead the transformation of our industry.
- For the development of coatings with lower environmental impact we have identified two principle routes. One is to use mass balance versions of our existing raw materials in formulating very similar coatings as today. The other route is to identify alternative materials for resins and solvents from segregated bio- and recycled supply chains and formulate significantly different products from these.
- For both routes we have reviewed currently available market offers Tier 1 and Tier 2 and studied product formulation opportunities.
- In the paper we introduce the results and compare them to state of the art benchmark coating formulations.
- We use a comprehensive set of parameters like Product Carbon Footprint, renewable carbon content, expected cost premium and time to market as well as initial downstream supply chain feedback.
- Our major customer industry construction does not support mass balancing in their Environmental Product Declarations (EPDs). The comparison will support the program holders to discuss the future of this regulation. This development will be very important for chemical companies having significant business in the construction industry like Beckers has.