A Desmodur® eco success story: How Covestro and coatings manufacturer PPG are putting a bio-based high-performance clearcoat on the road for Team Sonnenwagen of RWTH Aachen.
Covestro and PPG expand their partnership in an ambitious new project

As one of the largest coating manufacturers worldwide, PPG Industries is constantly looking for innovative solutions aimed at achieving the highest quality standards while respecting the environment. “In times of growing electro mobility, we want to succeed at establishing eco-friendly alternatives to traditionally used materials,” says Alban d’Epenoux, Marketing Director at PPG Refinish EMEA.

Looking back at a long and fruitful business relationship with PPG, Covestro was excited to renew their collaboration for a very ambitious project: the invention of a high-performance refinish clearcoat based on renewable materials. As a key component of the clearcoat, Covestro’s isocyanate hardener Desmodur® eco N 7300 was chosen. 70 percent of the hardener’s carbon content is sourced from biomass instead of fossil fuels, reducing the carbon footprint of the clearcoat hardener by around 30 percent – without any compromise on performance and quality.

Supporting the world’s toughest solar race

As the sponsor of the so-called “Sonnenwagen” project, Covestro had the perfect opportunity to test the bio-based clearcoat at hand. Developed by students of the German RWTH Aachen University, Sonnenwagen is a solar-powered car competing at the 2017 World Solar Challenge. The “toughest solar race on earth” covers more than 3,000 km across Australia, and aims to promote research on solar-powered cars.

The carbon fiber body of the solar car was coated with the novel, bio-based refinish clearcoat in a five-day application process at the PPG Training Center in Hilden, Germany. The outcome was excellent, as Dirk Czub, Technical Training Manager at PPG, sums up: “With Desmodur® eco, we are using a bio-based hardener in our clearcoat for the first time. Regarding both the application process and the required capabilities, this hardener shows high performance without any difference to conventional solutions on the market!”

Covestro sees e-mobility as an important contribution to the conservation of natural resources. The partnership with PPG and Team Sonnenwagen demonstrates our commitment to technologies that push boundaries through innovation – such as our renewable coating hardener Desmodur® eco N 7300.