

Abstract Covestro Deutschland AG, Dr. Saskia Beuck:

Alternative raw materials at Covestro - Pushing Boundaries

With 2018 sales of EUR 14.6 billion, Covestro ranks among the world's leading manufacturers of premium polymers. Business activities are focused on the manufacture of high-tech polymers in the field of polycarbonates, polyurethanes, coatings, adhesives and specialty raw materials.

Covestro is developing many different products using renewable feedstocks. Latest developments with bio-based raw materials will be presented, e.g. thermoplastic polyurethanes and a wood coating system, each with different bio-based building blocks. As an alternative source of carbon, CO₂ is also increasingly being used instead of petroleum-based raw materials, accounting for up to 20 percent of the raw materials used in a precursor for flexible polyurethane foam that Covestro began producing in 2016.

Another prominent research project at Covestro is the substitution of currently petrochemically derived aniline by biobased aniline derived from renewable feedstock. Covestro can achieve a 100% biobased carbon content in aniline, which is further used as a building block for the synthesis of methylene diphenyl diisocyanate (MDI). MDI is a key component to produce rigid polyurethane foam, a highly efficient insulating material used e.g. in buildings and refrigeration systems.