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ADHESIVES - THERE ARE MANY CHALLENGES LEFT FOR THE FUTURE

Adhesives became an all-rounder over time but the number of new formulations to fulfill advanced requirement profiles still increase. Nevertheless, improvements regarding eco-aspects are still required. First, this applies to economic aspects as the adhesives handling conditions directly influence the productivity of the bonding process. Especially for a productivity improvement, adhesives processing and formulation must interlock with each other. Beside the resulting properties of the final bond, the adhesive must enable quick application and must be able to settle or cure quickly. On the other hand, it “eco” concerns ecologic aspects. Adhesive as well as the bonding process should consume as less resources as possible but should lead to a bonded product with the desired life span. At the end of life, the product should dismantle itself in an ideal case. Therefore, aspects like utilization of renewable raw materials, integration of carbon dioxide, debonding on demand and the utilization of compounds as less toxic as possible are important aspects considered in the lecture. The complete topic will be illustrated by examples and it will be tried to sketch the futures progress in adhesive bonding.