ADHESIVE APPLICATIONS IN THE AUTOMOTIVE AND AVIATION INDUSTRIES COMPARED TO BONDED FACADE CLADDING

Did you know that various components and materials in aircraft are bonded for structural integrity, weight savings, and promotion of aerodynamic efficiency? Aircraft components such as fuselages, wings, and tail surfaces are often bonded together using adhesive techniques, contributing to the structural strength and stiffness of the aircraft.

Did you know that bonded automotive windshields play an essential role in the structural integrity of a vehicle and contribute to occupant protection in the event of an accident? Other vehicle components are also often bonded together using adhesive techniques, contributing to the safety or structural strength and stiffness of the vehicle (so-called crumple zones).

The bonding of automotive windshields became common practice in the 1950s, and the bonding of essential aircraft components originated in the 1960s.

The adhesive applications used must withstand varying or extreme conditions such as different and changing mechanical stresses due to air resistance such as tensile, compressive, shear, and torsional stresses, extreme temperature differences, and UV radiation. The elasticity and plasticity of adhesive bonds must be able to accommodate deformations of the structure, ensure the durability of the bond, and prevent the adhesive from degrading over time.

Since the 1980s, high-quality TWEHA-products have also been used to bond facade panels in ventilated facade constructions. Like the aspects mentioned above, TWEHA can also rely on decades of experience, research, quality, and safety, ensuring a sustainable and reliable attachment. Witness the many million square meters of facade panels that have been bonded and are being bonded worldwide.

TWEHA 2022