

thyssenkrupp pioneers steel composites with tribond

Customers in the auto industry now have a groundbreaking innovation at their disposal with the steel composite tribond, designed for hot forming. The variants now ready for production, tribond 1200 and tribond 1400, combine an inner layer of high-strength steel and outer layers of formable, ductile steel. This permits maximum strength and high ductility to be realized in one part – previously irreconcilable requirements. tribond is ideal for crash-relevant structural parts such as longitudinal members.

In the event of high axial stresses caused by an impact, these materials combine maximum strength with high energy absorption through controlled deformation of the steel. The result is improved occupant safety, plus a weight saving of 10 percent – and a reduced carbon footprint.

To validate the material's crash performance, thyssenkrupp Steel Europe has installed a simulation process that can model and test the required properties in advance. This high level of process reliability brings further advantages: In the past, conflicting material properties such as high strength and ductility could only be combined using complex technological processes. For customers, the advantage of tribond is that the complexity switches back to the material, in this case to the production of the multilayer slabs. Customers can process tribond on their existing production lines directly and without modifications.

thyssenkrupp is the only automotive supplier capable of supplying tailored steel composites for hot forming.