## **Henkel's Body Shop Solutions**

# STRUCTURAL ADHESIVES FOR EVOLVING DESIGN & MANUFACTURING NEEDS

Due to CO₂ regulations and evolving consumer demands, the variety of metals in today's vehicles is expected to increase in order to meet automotive lightweighting needs. With a wide range of advanced technologies including Structural Inserts, Structural Adhesives, Panel Reinforcements and Structural Tapes & Patches, Henkel offers solutions to effectively bond, stiffen, and seal these mixed materials, while ensuring long-term durability and performance. Structural Adhesives, for example, enable OEMs to overcome current engineering challenges in car design, bringing significant advantages over traditional joining methods.





#### THE AUTOMOTIVE INDUSTRY'S CHALLENGES

The automotive industry is currently undergoing an evolution. With the increase in electric vehicles as well as advanced driver assistance systems, the weight of the car body is rising. New lightweight vehicle architecture is required not only to meet CO₂ emission regulations, but also to ensure battery protection. At the same time, meeting crash requirements to guarantee passenger safety is of utmost importance.





#### HENKEL'S ADVANCED SOLUTIONS

Our diverse portfolio of structural adhesives offers differentiated technologies for varying vehicle application needs and meets cured and uncured requirements across substrates, delivering high crash-resistance while providing increased manufacturing flexibility and speed. Advanced wash-off resistance and increased material efficiency enable a sustainable and optimized material usage.

As part of The Mobility Alliance, we aim to boost the car development process by addressing customers' engineering demands from the earliest design and simulation stages. This enables automotive OEMs to master the current challenges in lightweight car design without having to compromise on long-term durability and safety for passengers.

#### THE RIGHT ADHESIVE FOR THE RIGHT TASK

#### **HIGH CRASH RESISTANCE**

- High-impact epoxy up to -40°C
- · Very high static strength
- · Low temperature curing capability
- High CTE durability for aluminum structures
- Superior wash-off capabilities

#### **MEDIUM CRASH RESISTANCE**

- Medium-impact epoxy/rubber
- High modulus
- Low temperature curing capability
- Cost-optimized
- Superior wash-off capabilities

# STIFFENING & HEMMING ADHESIVES

- Superior stiffness and enhanced durability
- Fatigue resistance and bonding to steel and aluminum substrates
- Superior wash-out resistance
- Low-temperature curing capability, most cost-advanced
- Rubber can exhibit up to 30 % elongation
- Superior wash-off capabilities

### **GET IN TOUCH WITH US**

For more information on our Structural Adhesives as well as our other services along the automotive value chain, visit:

www.henkel-adhesives.com

Or contact us directly at: aaoglobalmarketing@henkel.com

