



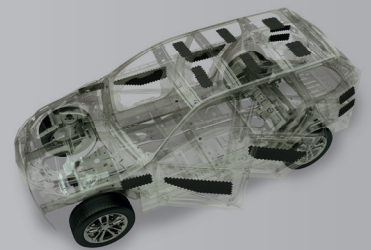
TEROSON[®] PANEL REINFORCEMENT SOLUTIONS

On the Drawing Board or On the Assembly Line

EV weight limits and ICE CO₂ and fuel economy requirements often mean engineers need to downgauge metal panels and introduce multi-metal construction. This can bring new challenges, including reduced stiffness. Whether in the design stage or on the production line, Henkel panel reinforcements are the ideal solution. Before production begins, Henkel – in concert with engineering firm RLE International (known collectively as The Mobility Alliance) – can evaluate potential design changes, make design recommendations and implement performance simulations. From there,

the team can recommend metal panel optimizations and design-in panel reinforcements.

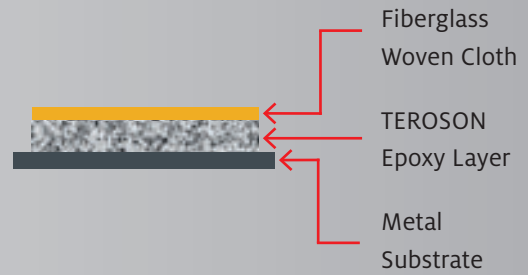
When structural problems arise on the assembly line, Henkel can provide expert analysis to help identify a solution that avoids adding significant mass or major mid-cycle design changes. Henkel Panel Reinforcements come in a variety of patch or spray-on formulations to help stiffen body panels, reinforce thin metal sections and strengthen high-stress areas. Custom die cuts are also available.

**Henkel**

PATCH COMPOSITION

Panel reinforcement patches provide local stiffness to reduce oil canning or panel deformation and eliminate the need to up-gauge or go to a higher-strength metal. They adhere to electrocoated, primed, galvanized, and cold-rolled steel and aluminum. Reinforcement patches are commonly used on door panels, hoods, fenders, and body and roof panels. Features include:

- Custom die cuts for consistent installation and ready fitment
- Low-density material in magnetic or non-magnetic versions
- Tacky patches for excellent adhesion to a wide range of metal substrates (aluminum and steel)
- Excellent pretreatment wash-off resistance
- Designed to ensure no panel distortions (read-through) after curing

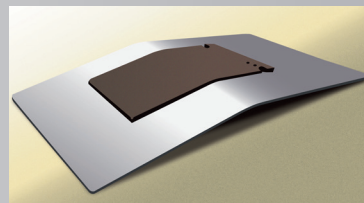
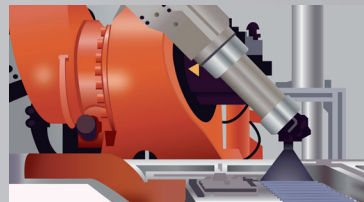


TECHNOLOGY BREAKTHROUGH: A SPRAYABLE PANEL REINFORCEMENT SOLUTION

For optimized vehicle weight, excellent adhesion to oily panels, process efficiency and easy application to all panel shapes, Henkel's sprayable reinforcement represents a technology breakthrough. It can be applied to all skin panels, the floor panel, pillars and the apron member.

Benefits include a:

- Thin-layer body panel stiffener design to replace conventional hand-applied patches
- Paste formulated product, applied using robotic spraying
- Specially-designed hardening system that enables the thin-layer application, which enables curing during the electrophoretic deposition coat process, allowing for high reinforcement performance at low temperatures



Tap Henkel expertise at the design stage of your project for maximum cost and time savings. Or let us assist with analysis and recommendations in the production phase. Whichever approach you choose, Henkel has cost-effective solutions to put your project on the right track.

GET IN TOUCH WITH US

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

www.henkel-adhesives.com

Or contact us directly at:

aaoglobalmarketing@henkel.com

The Henkel logo, consisting of the word 'Henkel' in a bold, white, sans-serif font inside a red oval border.