

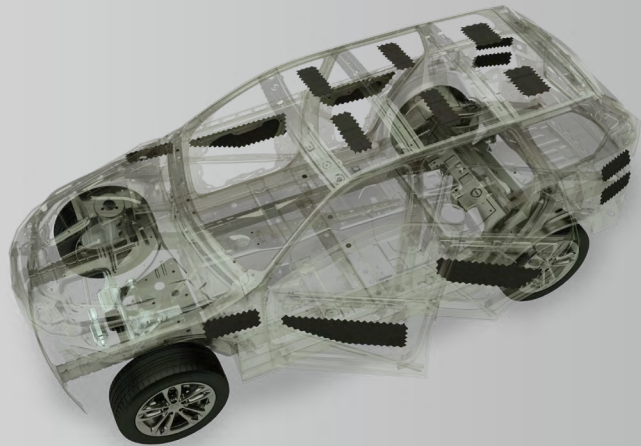


BEST PRACTICE

Look to TEROSON® RB 5185 Pumpable Panel Reinforcement for Cost Reduction, Efficient Application and Improved Sustainability

CHALLENGE

A global OEM was challenged to reduce costs of the existing 2D panel reinforcement patch solution in use on their high-volume, European-spec compact passenger vehicle. To achieve their goals, the proposed alternative panel reinforcement solution needed to integrate ease of application while retaining the stiffness and resistance to denting offered by the 2D patch. In addition, a new solution would be required to contribute to the OEM's lightweighting and sustainability aspirations. Henkel responded with collaborative engineering expertise supported by a full portfolio of panel reinforcement and rigidity solutions.



The Henkel logo, consisting of the word "Henkel" in a red, sans-serif font inside a red oval.

SOLUTION

Henkel experts collaborated with the OEM, delivering an efficient cost savings over the previous 2D patch solution with TEROSON RB 5185 pumpable panel reinforcement. Moving beyond the limitations of manual patch placement was just the start. Sprayable RB 5185 eliminated expensive manual work, warehousing requirements, internal logistics, blocked workspace on the assembly line, and specific design requirements for each vehicle model. Following a flawless introduction that included the participation of the OEM product development team and in-plant support personnel, the OEM approved spray-on technology for another of its brands. It is expanding TEROSON RB 5185 usage in a phased rollout across several vehicle models in plants spanning multiple markets, where it will replace competing 2D panel reinforcement patches. To help OEMs achieve their lightweighting goals right from the start, RB 5185 is also ideal for incorporating into all-new vehicle model designs.

BENEFITS

- Demonstrated outstanding bending resilience in testing, allowing a treated panel to bend 4mm and bend again with no performance degradation or read-through
- Provided a significant cost reduction by eliminating manual 2D patch placement
- Eliminated 2D patch packaging and release paper waste destined for landfills
- Introduced new jet stream spray technology for fast, automated and precise application
- Reduced CO₂ emissions by approximately 50% compared to the previous solution
- Supported OEM lightweighting goals

PORTFOLIO OF PANEL REINFORCEMENT SOLUTIONS

TYPE OF REINFORCEMENT PRODUCT	PRODUCT NAME	CHEMISTRY BASIS	EXPANSION RATE	CURE SCHEDULE	DENSITY [g/cm ³]	SPECIAL CHARACTERISTICS
Sprayable	RB 5185	Rubber	35%-100%	140°C ~ 200°C 10-30 min.	0.77-0.93	Jet stream, flat stream, swirl
Sprayable	EP 5041	Epoxy	35%-40%	140°C @ 30 min.+ 160°C @ 30 min.	1.03	Jet stream, flat stream, swirl, shovel spray
Patch	EP 7850	Epoxy	260%	140°C ~ 205°C 15-60 min.	0.37	Very high stiffening power, lower thickness patches
Patch	EP 2800	Epoxy-rubber blend	290%	160°C ~ 190°C 15-60 min.	0.36	High stiffening power patches
Patch	RB 5200	Rubber	200%	165°C 10 min.	0.54	Very low readthrough, damping properties
Patch	EP 16005	Epoxy	0%	160°C ~ 190°C 20 min.	1.94	Magnetic

GET IN TOUCH WITH US

For more information on our panel reinforcement and rigidity solutions, as well as our other services along the automotive value chain, visit:

www.henkel-adhesives.com

Or contact us directly at:

aaoglobalmarketing@henkel.com

