

BONDERITE®



Next Generation Metal Pretreatment

Innovative and Sustainable Pretreatment Coatings for Lightweight Constructions.

As a world-leading supplier of surface treatment technologies and services, Henkel provides a comprehensive range of proven innovative solutions for the automotive industry.

Henkel's BONDERITE Metal Pretreatment solutions enable vehicle lightweighting by processing up to 100% aluminum. These surface coatings lead to improved corrosion protection, bring ecological, economical and performance benefits, and can easily be integrated into existing production lines without cost-intensive modifications.

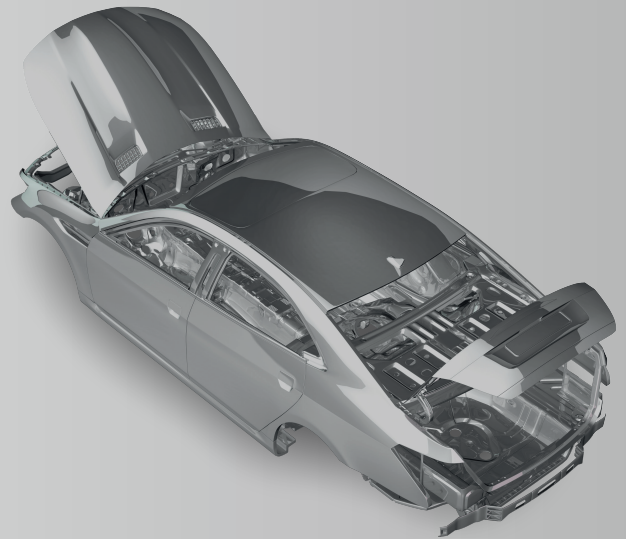


The industry challenge

Manufacturers and suppliers in the automotive industry are increasing focus on process efficiency, lightweighting and sustainability. To build lightweight body-in-white and automotive components, engineers decide for the use of mixed-metals with an increasing amount of aluminum substrates. Traditional zinc-phosphate processes pose limitations and increase sludge generation – especially when automotive bodies contain high percentages of aluminum.

Our solutions

Henkel's next generation pre-treatment processes offer fast, sustainable and efficient alternatives to traditional zinc phosphating. Our Two-Step Process is effective on mixed metal lines with up to 85% aluminum, while our TecTalis Thin-Film Process can be utilized for lines that process up to 100% aluminum. Both offer a cohesive, high-density coating on any metal surface. While the TecTalis Process contains no regulated heavy metals, optimizes processing costs, and leads to superior corrosion resistance, while offering additional sustainability advantages.



BONDERITE Next Generation Metal Pretreatment Solutions

Technology	Base	Aluminum %	Advantages	Temperature	Adhesion / Corrosion
Two-Step Process	Zinc / Zirconium	Up to 85 %*	Less Sludge and/or Nickel Free	43–49 °C / 110 to 120 °F	Excellent
TecTalis Thin-Film Technology	Zirconium	0 to 100 %	No Sludge, Ni-free, simplified processing	Ambient	Excellent



Lightweighting

- > Tailored to automotive bodies and components with high aluminum content
- > Designed for the processing of mixed metal structures up to 100% aluminum

Cost-Efficiency

- > Easy integration into existing production lines, with minimal modifications
- > Reduction of operating costs
- > Reduction in new systems process steps; saving time and money
- > Less maintenance

Sustainability

- > No regulated heavy metals
- > Up to a 90 % decrease in sludge generation
- > Reduced fluoride additive level
- > Ambient temperature options
- > Up to 30 % energy reduction
- > Up to 20 % water savings

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* The technology can even process 100 % aluminum cars in a mix of multi metal cars.

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