

# **BONDERITE**<sup>®</sup>



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



Henkel Adhesive Technologies

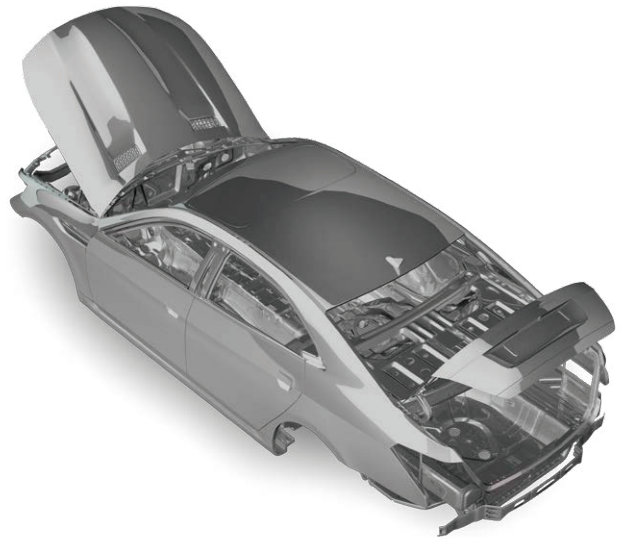
# BONDERITE®

## 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 BONDERITE Next Generation Metal Pretreatment is the fast, sustainable and efficient alternative to traditional zinc phosphatings. It forms a cohesive, high-density coating on any metal surfaces. This thin protective layer contains no regulated heavy metals, optimizes running process steps and costs and leads to superior corrosion resistance, while minimizing environmental impact and reducing cost-intensive process modifications.



## BONDERITE NEXT GENERATION METAL PRETREATMENT SOLUTIONS

TECHNOLOGY	BASE	ALUMINUM %	ADVANTAGES	TEMPERATURE	ADHESION / CORROSION
Bridge Technology	Zinc / Zirconium	Up to 85 %*	Less Sludge and/or Nickel Free	43 – 49 °C / 110 to 120 °F	Excellent
TecTalis Thin Film Process	Zirconium	0 to 100 %	No Sludge	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



### 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



### 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

**Europe**  
**Germany**  
 Henkel AG & Co. KGaA  
 (Headquarters) Henkelstraße 67  
 40589 Düsseldorf Germany  
 Phone: (+49) 211 797-0  
 www.bonderite-mpt.com

**Americas**  
**U.S.A.**  
 Henkel Corporation Madison  
 Heights  
 32100 Stephenson Highway  
 Madison Heights, MI 48071  
 United States  
 Phone: (+1) 248 583 9300

**Asia-Pacific**  
**China**  
 Henkel (China) Co. Ltd. No. 928  
 Zhang Heng Road Pu Dong  
 201203 Shanghai  
 China  
 Phone: (+86) 21 2891 8000

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

