



**BONDERITE**



CUSTOMER USE CASE

## **BONDERITE**

### BONDERITE THIN FILM PROCESS SUCCESS STORY Phosphate-free, nano-ceramic conversion coating process

#### 1 CUSTOMER CHALLENGES

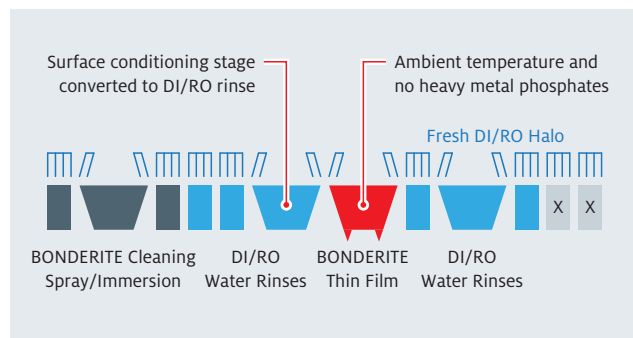
- » Major automaker in China needed to meet tightening environmental restrictions related to heavy metal phosphates.
- » Process and durability performance required to be equivalent to the BONDERITE Zinc Phosphate Process.
- » Process costs needed to be reduced while simultaneously decreasing ecological footprint.



#### 2 RECOMMENDED TECHNOLOGY

- » Henkel recommended the brownfield conversion of a BONDERITE Zinc Phosphate line to a BONDERITE Thin Film line.
- » Key facilities updates included:
  - Conversion of surface conditioning tank to DI/RO rinsing.
  - Elimination of heat exchanger and laminar flow in conversion coating.
  - Replacement of filter press with bag filters.

- » Key material changes included:
  - Replacement of alkaline degreasing chemicals with BONDERITE cleaner.
  - Chemical cleaning of surface conditioning and conversion tanks.
  - Charging of BONDERITE Thin Film chemicals to previous BONDERITE Zinc Phosphating stage.
  - Elimination of passivation materials.



- » About BONDERITE Thin Film
  - Provides high-performance corrosion protection on all major metals and up to 100% aluminum.
  - Sustainable process that includes no heavy metal phosphates, no heating in the conversion stage, no surface conditioning step and the potential for reduced water usage.

• matters for all.

GET IN TOUCH WITH US:  
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**BONDERITE THIN FILM PROCESS SUCCESS STORY**  
**Phosphate-free, nano-ceramic conversion coating process**

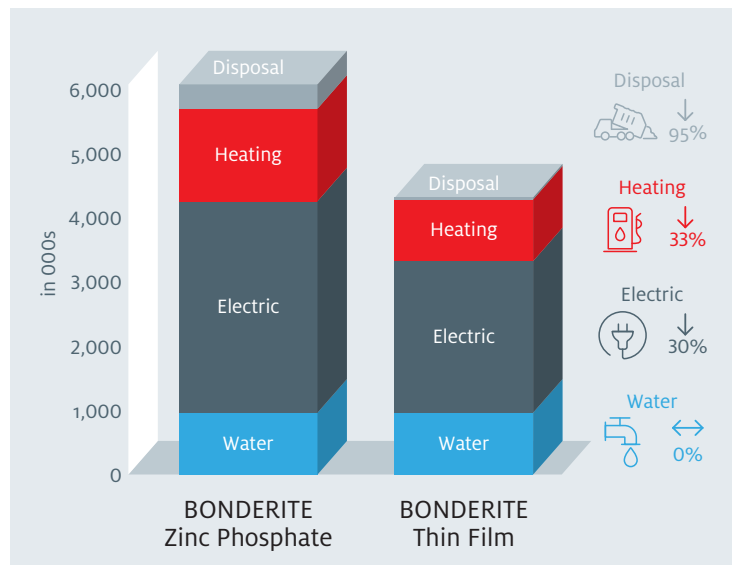
**3 CUSTOMER BENEFITS**

**Cost Savings**

» Annual cost savings of ~190,000 euros.

**Performance**

» Throw-power performance after BONDERITE Thin Film conversion equivalent to BONDERITE Zinc Phosphating system.



**Collaborative Approach**

Close technical collaboration across the OEM Team and Henkel Team to execute a flawless conversion.

**Technical Collaboration**



**OEM Team**

- 1 Throw-power recovery plan
- 2 Waste treatment plan
- 3 Operator training plan

**Henkel Team**

- 1 Facilities modification plan
- 2 Chemical cleaning plan
- 3 Production ramp-up plan
- 4 Site safety plan

TO FIND OUT MORE ABOUT AUTOMOTIVE SURFACE TREATMENTS, VISIT:

[www.henkel-adhesives.com](http://www.henkel-adhesives.com)



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