

BONDERITE®

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

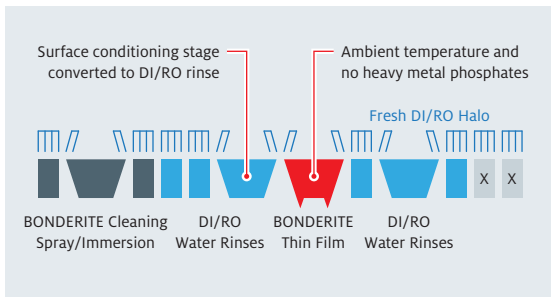
1 CUSTOMER CHALLENGES

- » 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.

GET IN TOUCH WITH US:
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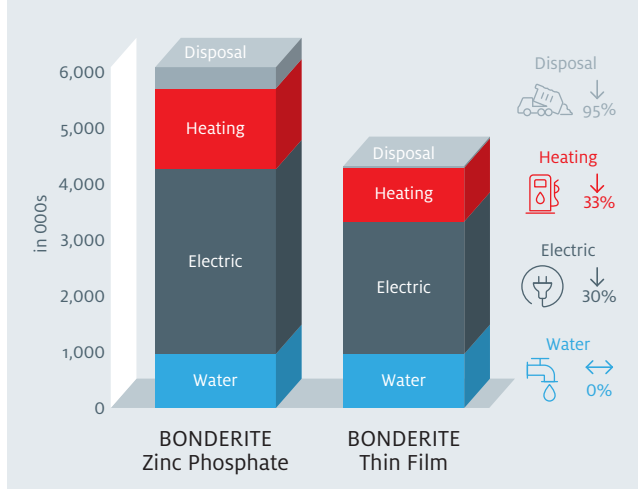
3 CUSTOMER BENEFITS

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

