

Case Study

Ad-Tech improves results for customers

Gardobond® A 4002 high performance iron phosphate technology



Experience Chemetall's improvement through innovation

- ⊕ **Gardobond A 4002 noticeably improves corrosion protection and part quality.**
- ⊕ Robust processes for higher quality and uniform finish.
- ⊕ Additional savings with no final seal required.
- ⊕ Low temperature saves energy.
- ⊕ Caterpillar 1E 4093-B approved.
- ⊕ Meets the highest quality standards of John Deere.

BASF
We create chemistry

Chemetall
expect more ⊕

Ad-Tech improves results for customers (Case study)

Ad-Tech Industries, Inc. (Ad-Tech) was thrilled with the immediate improvements after converting to Chemetall's new **Gardobond® A 4002** iron phosphate technology. Steve Loritz, Operations Manager for Ad Tech, explains that Ad-Tech had very high expectations from the latest Chemetall line conversion. "We have been a Chemetall customer for 15 years, and any Chemetall customer knows that they set a very high bar. Chemetall impacts the one metric that is most important, the satisfaction of *our* customers. Chemetall's philosophy of continuous improvement through collaboration fully aligns with our commitment to our customers."

Mr. Loritz continues, "This time was no exception; we immediately observed the very even conversion coating over the entire surface area with **Gardobond A 4002**. Further, it is easy to control, and provides noticeable improvements in corrosion protection and part finish and quality. Our key customers are happy that their specification requirements are being met so accurately and consistently."

Chemetall is known for their expertise and dedication to their customers. This is a perfect example of how customers can thrive by receiving new technologies. Chemetall understood Ad-Tech's need for continuous improvement, and its goal to remain sustainable into the future by reducing energy consumption, improving environmental stewardship, and quality.



Powder coating in progress.



E-coat complete and ready for curing.

Ad-Tech is a successful longstanding supplier to the Agricultural, Construction, and Earthmoving (ACE) industries with clients including John Deere and Caterpillar. In this market there is a need for well-built processes with uniform high-performance iron phosphate coatings. The **Gardobond A 4002** technology outperforms other industry solutions, ensuring that coating weights and subsequent paint performance are met consistently and effortlessly.

Ad-Tech is a principal supplier of a wide variety of coating and finishing services, such as e-coat, powder coating, liquid coating, and electroless nickel plating, for major manufacturers in Wisconsin and surrounding areas. Additional services provided include "value-added light assembly and silk screening". Ad-Tech provides pickup and delivery service into the greater Milwaukee metro area. Ad-Tech is a convenient, one-stop shop. They are innovative, proactive, and committed to superior workmanship and customer satisfaction. In business since 1978, Ad-Tech expanded their footprint from 165,000 square feet to 245,000 after the recent expansion in 2019. They are positioned on 8.5 acres of land in Watertown, Wisconsin.

+ Chemetall supplies to Ad-Tech

- a. Cathodic-epoxy ecoat paint pretreatment — 12 stages including acid pickle and automotive-grade zinc phosphate finish (also meeting MIL-Spec). Cathodic epoxy ecoat provides superior corrosion protection for a wide array of applications.
- b. Powder coat pretreatment — (2) 7-stage spray washers operating acid pickle and iron phosphate finish**
- c. Powder coat pretreatment — (1) 8-stage spray washer operating acid pickle and advanced pretreatment finish
- d. Powder coat pretreatment — (1) 5-stage spray washer operating iron phosphate surface treatment
- e. (1) Manual pressure wand iron phosphate bath finishing line (for larger parts)
- f. (1) Electroless nickel plating line
- g. Paint stripping chemistry (mostly for internal stripping applications)
- h. (4) Continuous wastewater treatment systems
- i. Boiler water treatment chemistry



Parts entering one of (2) 7-stage washers to be cleaned and treated with Gardobond A 4002.

The two 7-stage powder coat lines are the specific processes that benefitted from this recent technology upgrade. Powder coating line #1 process includes alkaline cleaning with **Gardoclean® TP 10367** and laser-scale removal with a Chemetall acid pickle with **Gardacid® P 4462/1**, followed by the iron phosphate technology finish **Gardobond A 4002**. The smooth transition to **Gardobond A 4002** on the powder coating line #1 was successfully completed in February 2019. The next milestone at Ad-Tech, was the conversion of the powder coating line #2 which was transitioned to **Gardobond A 4002** in May of 2020.

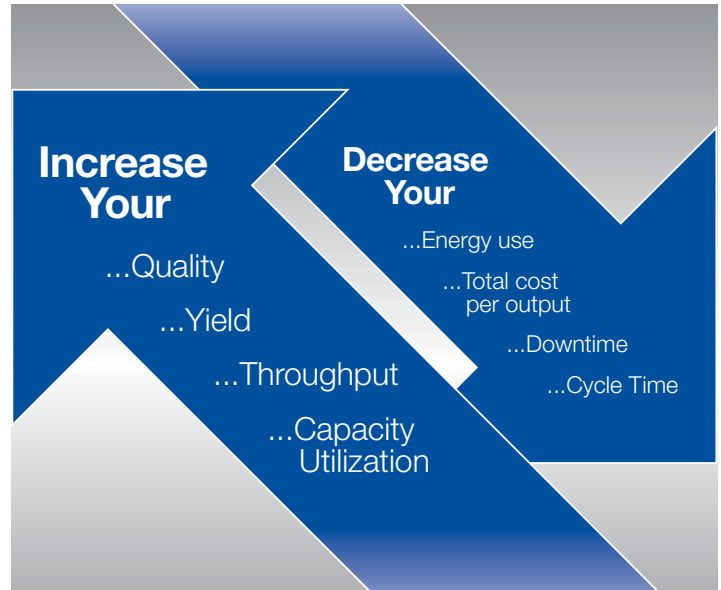
Steve Loritz had more to say, “Chemetall has achieved the one metric for us that is always the most important. Chemetall helped our customers be happier with us! **Gardobond A 4002** has been able to meet key customer specifications such as John Deere paint specifications and meet Caterpillar specifications without the use of a sealer. Added to this the seamless and easy transition. This is a true win-win.”

Brian Groubert, Technical Account Manager for Chemetall, was equally enthusiastic, “This product is built so well that it continues to deliver the consistent coatings well into its bath life unlike other pretreatment iron phosphates in the industry which tend to break down faster. Furthermore, the wide process operating range of **Gardobond A 4002** make it easy to use in just about any industry. Ad-Tech is now enjoying improvement in coating weights (previously about 50 mg/ft² to about 70 mg/ft² currently) without making any other changes to the line. All physical testing including salt spray and cyclic corrosion testing saw an improvement of 20–40%. We are thrilled.”

Cut it. Clean it. Coat it. Control it. Conserve it.® with us!



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Our focus is you, our pretreatment customer!

At Chemetall, we are dedicated, so you can expect more. Our global specialists are locally available. Our experts provide focused, passionate, and accountable support. You can expect the highest quality from our integrated portfolio of innovative products. Our labs are fast and accurate. We will collaborate with you to increase the efficiency of your process performance.

We are the Surface Treatment global business unit of the Coatings division of BASF, operating under the Chemetall brand, a leading supplier of applied surface treatments and services for metal, plastic, and glass substrates in a vast range of industries and end markets. As process innovators, fully dedicated to your success, we develop, manufacture, and provide best-in-class technologies, systems, and expertise.

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