

HIGHER HARDNESS

Medical Company Switches to Diamond E.N. to Gain Durability

THE CHALLENGE

Lincoln Diagnostics has been a **Bales** customer for **30-plus years**. The company manufactures 60 million units of disposable allergy skin test devices a year, and Bales coats a critical component: proprietary steel inserts with a perfectly sharp point.

However, that tip is a sticking point — literally. During molding, the tiny inserts, which are as small as a contact lens, can stick to the mold when the point doesn't release well. The result: slowed production and compromised quality.

"We need a clean release. It has to come out of the mold easily," says Dennis Recker, a consulting engineer to **Lincoln Diagnostics**.

To achieve that primary objective, the company has been using Bales' Nicklon™ coating. "It's always worked well for us," Recker says. However, the part required such a tight tolerance that "when we pull the tool apart to clean it, we found we needed a more durable coating."

THE SOLUTION

Recently, Recker received a mailer from **Bales** showing a coin coated in **Diamond E.N.™**, our newest proprietary coating.

"I was struck by how slippery it was," Recker says. "We got some specs and saw that, on paper, the coefficient of friction isn't much different than Nicklon. However, the hardness is much higher."

Diamond E.N. is an electroless nickel coating with diamond particles for excellent wear properties, so it provides high wear resistance as well as release.

Recker had **Bales** conduct a test. "We coated a quarter of the tool in **Diamond E.N.**, and it looked good, so we did the rest of the tool. It's in the mold right now."

THE RESULT

While it's still too early to measure performance, Recker is confident that **Diamond E.N.** will prove to be a winner. "I have a lot of confidence based on what we've seen so far," he says. "The Diamond E.N. is giving us more durability."

In fact, he's sending us another 256 parts to plate in **Diamond E.N.**

Recker says Bales' level of excellence is a marvel. "**Bales** has done thousands of these parts for us and never lost one. I don't know how they do it. I absolutely would recommend them."

See and feel for yourself. Interested in **Diamond E.N.**? Visit BalesUSA.com to learn more and contact Bales for a sample.



"The Diamond E.N. is giving us more durability."

- Dennis Recker
Consulting Engineer
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We Finish What Others Start

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