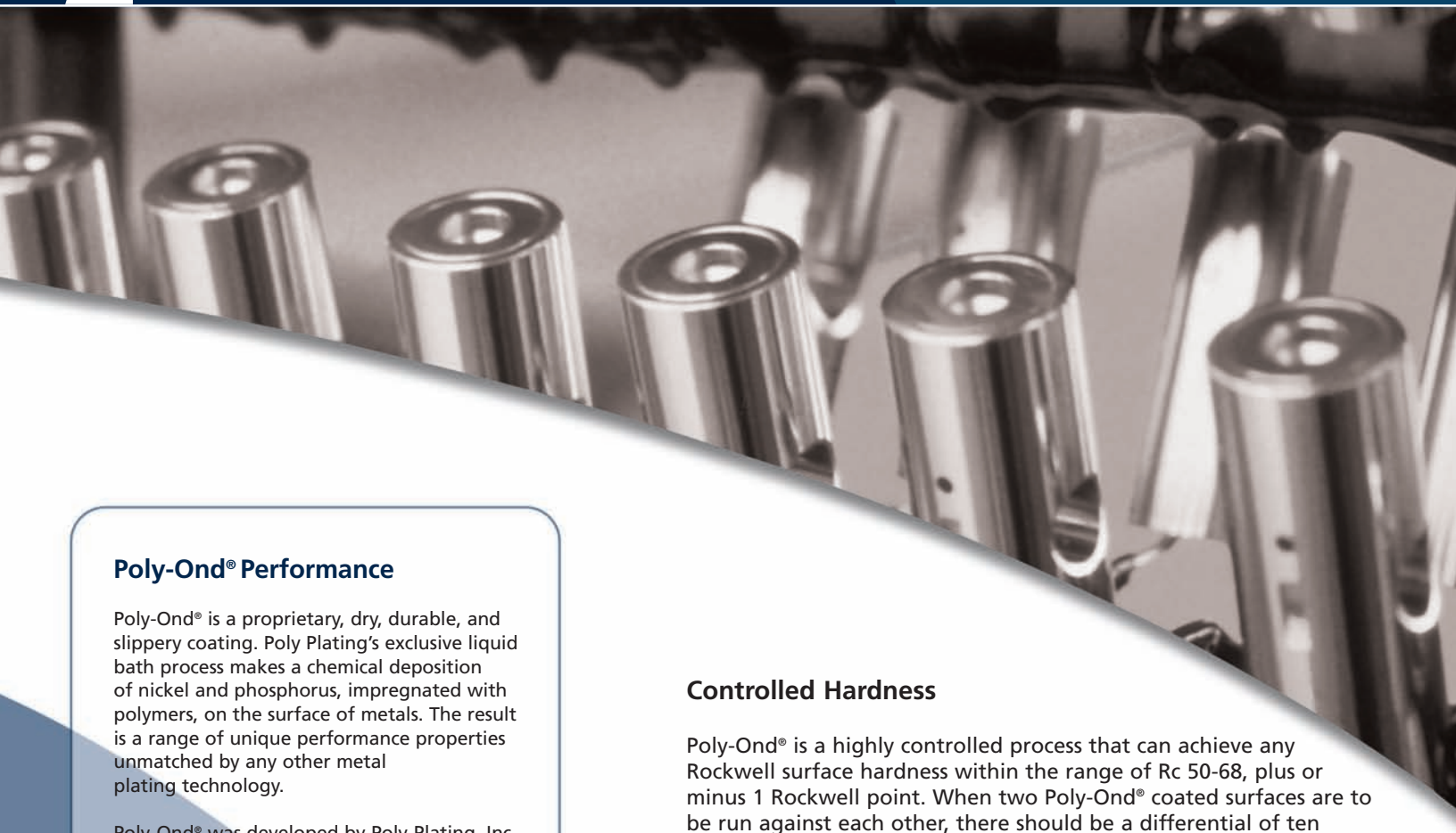
POLY PLATING inc.

Poly-Ond® HARDNESS



Poly-Ond® Performance

Poly-Ond® is a proprietary, dry, durable, and slippery coating. Poly Plating's exclusive liquid bath process makes a chemical deposition of nickel and phosphorus, impregnated with polymers, on the surface of metals. The result is a range of unique performance properties unmatched by any other metal plating technology.

Poly-Ond® was developed by Poly-Plating, Inc., a family owned business founded in 1976. Now in its second generation of ownership and management, the company has enjoyed continuing success through technological innovation and customer commitment. We offer normal 3-5 day turnaround from the time work is received until it is ready for shipment. Special rush arrangements made in advance can provide turnaround as fast as 24 hours.

Poly-Plating, Inc., has a long-standing record of environmental stewardship, including surpassing 500 other Massachusetts companies to win the Governor's Award for Toxic Waste Reduction. We're cutting costs for our customers while improving the environment.

For more information or to discuss your specific application, please call 413-593-5477.

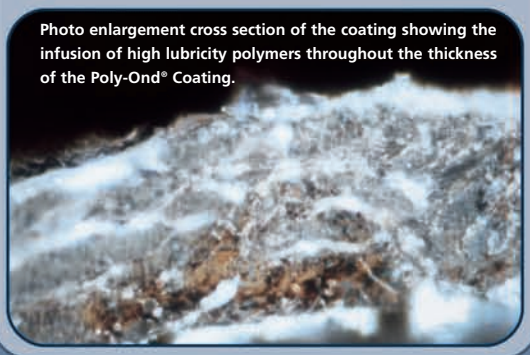


Photo enlargement cross section of the coating showing the infusion of high lubricity polymers throughout the thickness of the Poly-Ond® Coating.

Controlled Hardness

Poly-Ond® is a highly controlled process that can achieve any Rockwell surface hardness within the range of Rc 50-68, plus or minus 1 Rockwell point. When two Poly-Ond® coated surfaces are to be run against each other, there should be a differential of ten hardness points between the coatings on each of the two surfaces. The coating looks and acts the same regardless of the base material to which it is applied.

Performance In Action
Poly-Ond® coating on cutting tools reduces heat generated in use. Tools stay sharp longer and last longer, reducing costs and downtime.

Use More Economical Metals

The surface hardness and corrosion resistance that Poly-Ond® delivers often make it possible to substitute less expensive metals for more costly or exotic ones, with no compromise in performance. For example, common steel plated with Poly-Ond® can replace stainless steel or other more expensive metals.

Poly-Ond® can be applied to steel, stainless steel, aluminum, brass, bronze, cast iron and many other metals. Dissimilar metals can be coated, though each material must be coated in a separate process. Poly-Ond® can be chemically stripped from the parent material without harming dimensions or degrading existing surface characteristics. (We cannot strip other plating materials, however.)

Performance In Action
Regular steel was substituted for bronze in high-pressure steam valves. After four years, there was no evidence of rust, pitting or corrosion on the steel surfaces where Poly-Ond® was applied. The company estimates a savings of 75%.