Technology: SmoothCoat®

Material Warning



Material Hardness













SuperNitride PVD Hard Coatings Exclusively by Tool Alliance®

The Coating Process The challenge of finding a coating method to leverage 100% of the inherent assets of our carbide grade and grinding technologies was difficult. What we finally discovered was such a perfect fit and so logical for our product lines that we invested heavily into the process we now call Smooth Coat®. Much more than simply the standard arc-deposited PVD coating, SmoothCoat involves sputter multi layering and a multi step prep & post operation called Micro-Blasting. The advantages of this procedure include relieving of tensile stresses underneath the cutting edge, increased stability of the coating surface, and perhaps most importantly, elevating SmoothGrind® even another notch by leveling and activating the cemented carbide substrate. The result is a smooth, shiny, tough, and durable surface that can withstand tomorrow's machining requirements and outlast competitive coatings. Additionally, we've made it a standard feature on thousands of our standard catalog items. Our coating services are performed within our own factories for quality & extremely quick turnaround times.

Coating Availability Order by adding the suffix TA, TN, AT, TC, A1, D1, or D2 to the EDP #.



















Our coating @

2,000X (left).

(right).

Everybody else's

Note the surface consistency and smoothness.





materials up to 50HRc including steel, stainless steel, & cast iron

great choice for wide range of materials wet & dry applications

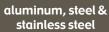
general purpose in all materials up to 30HRc

excellent lubricity & wear



aluminum, titanium, & non-ferrous

tremendous lubricity / reduced weld allows for dry milling



materials up to 70HRc including high-temp exotics, nickel based alloys, die & hardened steels

ideal for dry milling & high speed machining

lower temp applications



extreme hardness for wearability in graphites, plastics, silicon allovs & other abrasive materials

sharpest diamond edge



extreme hardness for long life (10-50x) in graphite, carbon, composites & high silicon aluminum

> thickest diamond coating





SmoothCoat®