Grade Options

APPLICATIONS FOR CBN

- Hardened steel (45 – 68 HRc)
- Chilled cast iron, hardened ball bearing steel, case hardened steel, hardened cold work steel, stainless steel (hardened)
- Various hard coatings based in Co-, Ni-, or iron
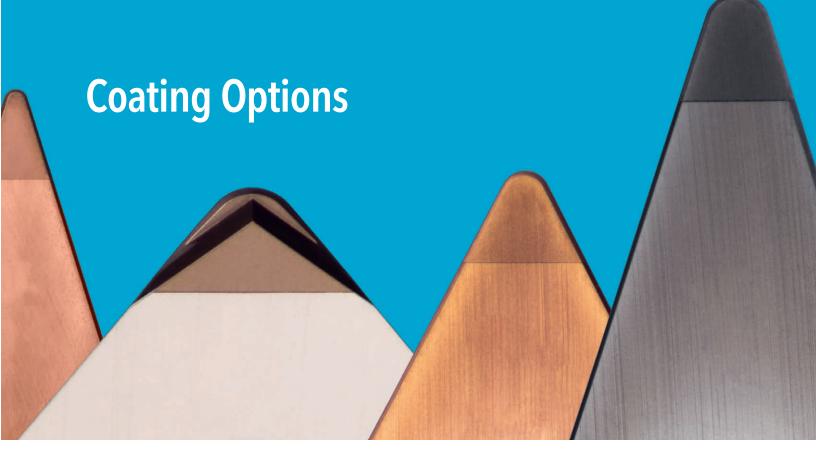- Soft short-chipping cast irons or sintered metal

GRADES

IN80A Finishing applications in gray cast iron and powdered metal.

IN80B Solid CBN grade - chilled cast iron and various hard coatings based in Co-, Ni-, or iron roughing applications.

IN81A Machining hardened steel with heavy, interrupted cuts.

IN82A Machining hardened steel with light, continuous cuts - up to 650 SFM (200 m/min) cutting speed.

IN83A Finishing applications in hard materials – up to 820 SFM (250 m/min).

Member IMC Group
Ingersoll Cutting Tools

Coating Options

COATINGS

A coating can be added to any grade. Simply add the desired coating code to the end of any grade designation – example: IN80AH

Ingersoll offers optional coating solutions for your applications. Coatings simplify wear detection and can extend the life of a CBN insert.

Coatings reduce abrasive wear of the rake (top) and flank (side) surfaces of the CBN insert. The extremely smooth coating layer surface reduces build up on the insert rake surface, promoting smooth chip flow and more predictable tool life. A coating can also serve as a visual aid that guides operators to detect used cutting edges more reliably.

Coating Designation	H	I	Y
Material	Silicon, Aluminum, Titanium, Nitrogen	Titanium, Carbon, Nitrogen	Aluminum, Titanium, Nitrogen
Structure	Nanostructure	Monolayer	Nanostructure
Color	Copper	Gold	Black/Blue
Application	**WEAR OPTIMIZATION AND WEAR DETECTION** First choice for continuous and interrupted cutting in hard materials.	**WEAR DETECTION** Used exclusively for wear detection. Uses a coating applied at a lower temperature.	**WEAR OPTIMIZATION** For use in interrupted cutting of hard materials, and cast iron. Less suitable for wear detection due to dark color.

Additional coatings are available. Contact Ingersoll's technical support team to discuss your application and recommendations.