

# ADICO High content PCBN

ADICO offers top quality Polycrystalline Cubic Boron Nitride(PCBN) blanks in 3 different product configurations; Single layer PCBN with a WC substrate, Double layer PCBN with WC intermediate layer, and Solid PCBN.

## 3-different Adico PCBN Product Configurations

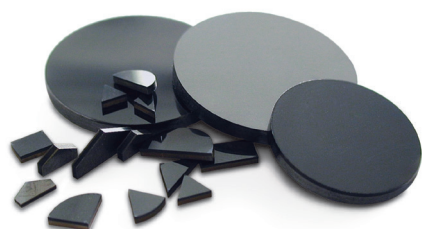
ATN-series  
(Single PCBN-layer)



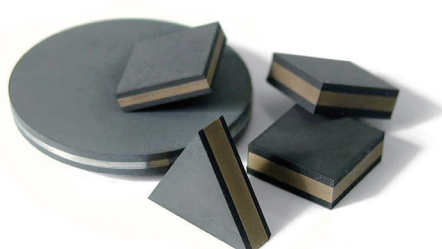
ADN-series  
(Double PCBN-layer)



ASN-series  
(Solid PCBN-layer)



**Blank Sizes**  
Diameter [mm]: 61.0  
Thickness [mm]: 1.6, 2.0, 2.4, 3.2, 4.8



**Blank Sizes**  
Diameter [mm]: 61,0  
Thickness [mm]: 3.2, 4.8, 6.4



**Blank Sizes**  
Diameter [mm]: 55.0  
Thickness [mm]: 3.3, 5.0

## ADICO PCBN GRADES

The composition and mechanical properties of Adico PCBN have been carefully chosen in order to optimize the cutting tool performance in targeted machining applications. This has been achieved during synthesis, by varying the CBN volume%, the CBN grain size, and the chemical composition of the matrix.

## High content PCBN

PCBN	CBN [vol%]	CBN size [µm]	Main Binder	Comment
ATN10	95	3	Co, Al	Standard
ATN10N	95	3	Co, Al, X	Higher wear resistance
AN95 <b>NEW</b>	95	2	Co, Al, X	Higher toughness
ATN16	90	1	Co, Al	Standard
AN90 <b>NEW</b>	90	1	Co, Al, X	Higher toughness

X: optimized process

## ADICO PCBN Cutting Tool Product Application Areas

The range of workpiece materials that Adico PCBN can successfully machine is constantly expanding, but the main material groups are:

1. Hardened steels
2. Hard facing alloys
3. Chilled cast iron
4. Pearlitic grey cast irons
5. Sintered iron
6. Superalloys e.g. Inconel 718
7. Powder metal e.g. automotive valve seats

### ADICO PCBN Products

Successful machining applications have been established in the automotive, aerospace, and manufacturing industries, and some examples are:

#### High content PCBN

- ATN10
  - Gray cast iron cylinder boring (GG 20/25)
- ATN10N
  - Nodular cast iron tuning (GGG50, 38-42 HRC with good cylindricity)
- AN95 **NEW**
  - Higher feed rates than other tools
- ATN16
  - Brake drum tuning (GG20)
- AN90 **NEW**
  - TiAl6V4 exceptionally good for tuning applications
  - Internal gear tuning with very good surface finish
  - Ball nose end milling (CF53, 62HRC) with extremely high edge-stability and better surface quality
  - Sintered geared tuning (SK72-01, 60HRC)