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Longer Drilling Footage

## Automotive Industry PCD Blanks Cutting Tool Blanks Pcd Disk 5um

### Our Product Introduction

#### Basic Information

- Place of Origin: China
- Model Number: Round Disc
- Minimum Order Quantity: 1 PCS
- Packaging Details: Plastic box, Carton
- Delivery Time: 5-8 workdays
- Payment Terms: T/T, Western Union, L/C
- Supply Ability: 1500 pieces per month



#### Product Specification

- PCD Cutting Tool Blanks: Automotive Industry PCD
- Shape: Round
- Size: 58mm
- Grain Size: 5 $\mu$ m, 10 $\mu$ m, 25 $\mu$ m
- Application: Cutting
- Transport: By Air
- Highlight: Automotive Industry cutting tool blanks, cutting tool blanks 58mm, pcd disk 5um



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## Product Description

### Automotive Industry PCD, PCD Blanks, PCD Discs, PCD Cutting Tool Blanks

#### 1. Description:

We provide the widest selection of PCD cutting tool blanks in disc and cut-segment shapes for the precision tooling industry. There are 2µm, 5µm, 10µm, 25µm, and mixed grain sizes available. In addition to grain sizes, the product options include polished or non-polished PCD surface, PCD layer thickness and carbide substrate thickness. By utilizing the correct grade you can control the surface finish necessary throughout the machining process and receive optimum tool life.

#### 2. Specification:

Grain Size	Type	Property	Application
Fine 5 µm	Round disc Cutting tips	Good surface finishing	Used for copper, bronze, aluminum, plastic, wood composites;
Medium 10 µm	Round disc Cutting tips	General purpose, a good balance of toughness and wear resistance	Used for low-medium silicon aluminum alloys, copper alloys, wood composites, etc.
Coarse 25 µm	Round disc Cutting tips	Good wear resistance	Used for high silicon aluminum alloys, metal matrix composites, laminate flooring, carbide alloy, ceramics, etc.

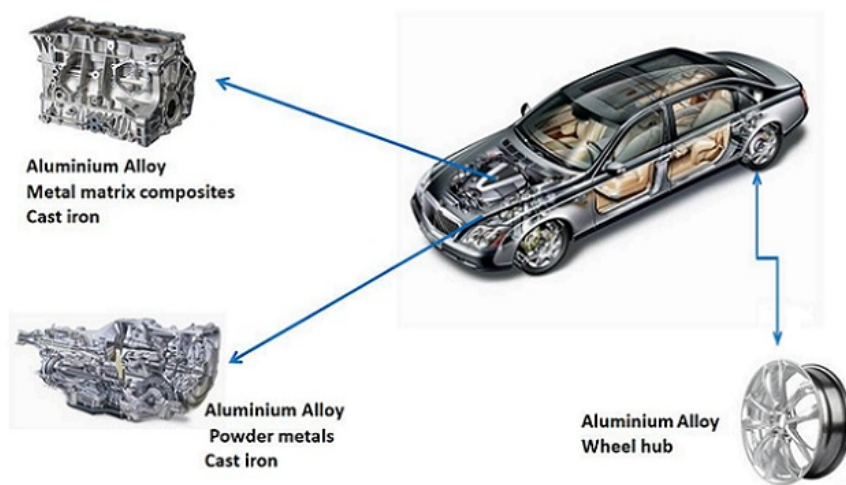
as 0.8mm, 1.0mm, 1.2mm, 2.5mm, etc. are available for customization.

2). Special PCD thicknesses are also available for customization.

3). Both regular and irregular PCD cut tips in various shapes or profiles are available in accordance with customers' drawings.

#### 3. Application:

PCD has been successfully used in the manufacture of various knives, including hairpin knives, turning knives, punch knives, saw blades, profile knives, etc., used to process copper, aluminum and other non-ferrous metals and their alloys, wood, cemented carbide, graphite, plastics, etc. Non-metallic materials such as rubber, ceramics, and glass fiber reinforced plastics.



In the car body, most of the aluminum parts are concentrated in the air conditioning system, engine cover, shock absorber parts and steering column. In the automobile chassis and suspension assembly, aluminum parts are mainly concentrated on the wheel hub, suspension bracket and steering system assembly parts. In the power train, most of the aluminum parts are located on the engine cylinder head, cylinder block, engine cover, pump, and cooler. In addition, the application of aluminum alloys in seals, body shells and chassis is also increasing. Among them, PCD tool applications are more concentrated in automobile engines, gearboxes, steering gears, brakes and wheels. Viewlink automotive industry PCD are suitable for these parts during the car production.

#### 4. Advantage

Extremely high hardness and wear resistance: the hardness can reach 8000HV, which is 80-120 times that of cemented carbide.

Excellent thermal conductivity: the thermal conductivity is 700W/mk, which is 1.5-9 times that of cemented carbide.

Low friction coefficient: The friction coefficient is generally 0.1-0.3 (hard alloy is 0.4-1), so the automotive industry PCD tools can significantly reduce the cutting force.

Low coefficient of thermal expansion: The coefficient of thermal expansion is only  $0.9 \cdot 10^{-6}$  to  $1.18 \cdot 10^{-6}$ , which is only 1/5 of that of cemented carbide. Therefore, the thermal deformation of automotive industry PCD tools is small and the machining accuracy is high.

Smaller material affinity: The affinity between automotive industry PCD tools and non-ferrous metals and non-metallic materials is very small. During the machining process, the chips are not easy to stick to the tool, and it is not easy to stick to the tool tip to form a built-up edge.



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