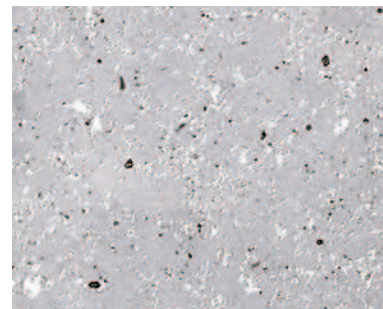


SINTERED DIAMOND PCD GRADE MD220

- Suitable for materials such as aluminium alloy, non-ferrous metals, and fibre strengthened plastic.
- Suitable for extremely high speed finishing.



Micro-Structure of MD220

RECOMMENDED CUTTING CONDITIONS

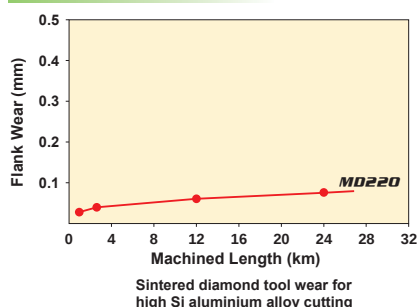
● TURNING

Work Material	Recommended Cutting Condition		
	Recommended Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)
Aluminium	1000 (200—1500)	—0.2	—3.0
Aluminium Alloy (Si ≤ 16%)	800 (200—1200)	—0.2	—3.0
Aluminium Alloy (Si ≥ 16%)	600 (200—1000)	—0.2	—3.0
Copper Alloy	700 (200—1200)	—0.2	—3.0
Strengthened Plastic	600 (100—1000)	—0.4	—2.0
Glass Fibre Reinforced Plastic	500 (100—800)	—0.25	—2.0
Carbon	400 (100—600)	—0.3	—2.0
Ceramics	50 (30—80)	—0.1	—2.0
Hard Rubber	600 (300—800)	—0.15	—1.0
Wood Inorganic Board	1300 (300—4000)	—0.4	—
Cemented Carbide	15 (5—20)	—0.2	—0.5

(Note1) ◎ : 1st recommendation. ○ : 2nd recommendation

(Note2) Not suitable for steel.

CUTTING PERFORMANCE



<Cutting Conditions>
 Workpiece: High Si Aluminium Alloy
 Tool: P11R, SPGN120308
 vc=200m/min
 ap=1.5mm
 f=0.15mm/rev
 Coolant: W.S.O

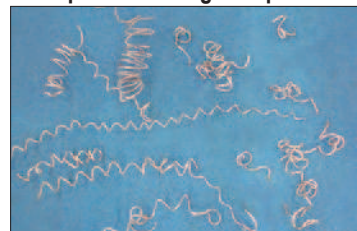
NEW PETIT CUT INSERT SERIES

■ FEATURES

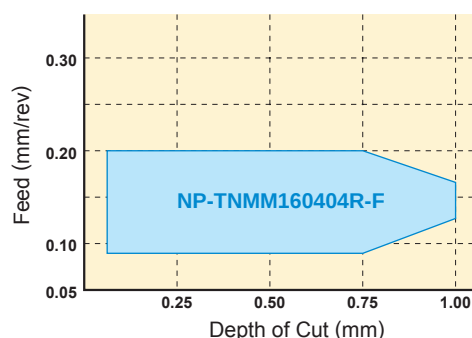
- **Economical** The small PCD tip delivers long tool life. Eliminates the need for regrinding, making tool management easier and economical.
- **With Breaker** Chip breaker formed directly on the PCD portion delivers superior chip control.
- Corner R0.05mm inserts are available, making it suitable for the machining of small work corner radii.

■ CUTTING PERFORMANCE

● Chips when using a chip breaker



● Chips made when no chip breaker used



<Cutting Conditions>

Workpiece : Aluminium alloy
 Cutting Speed : 340m/min
 Feed : 0.1mm/rev

Depth of Cut : 0.1mm
 Dry Cutting

<Cutting Conditions>

Workpiece : Aluminium alloy
 Cutting Speed : 400m/min
 Wet Cutting