CVD Milling NCM535 & NCM545 New Grades

Purpose

• To promote new grades for higher productivity when roughing/high speed/large machining for steel and cast iron

Subject Item

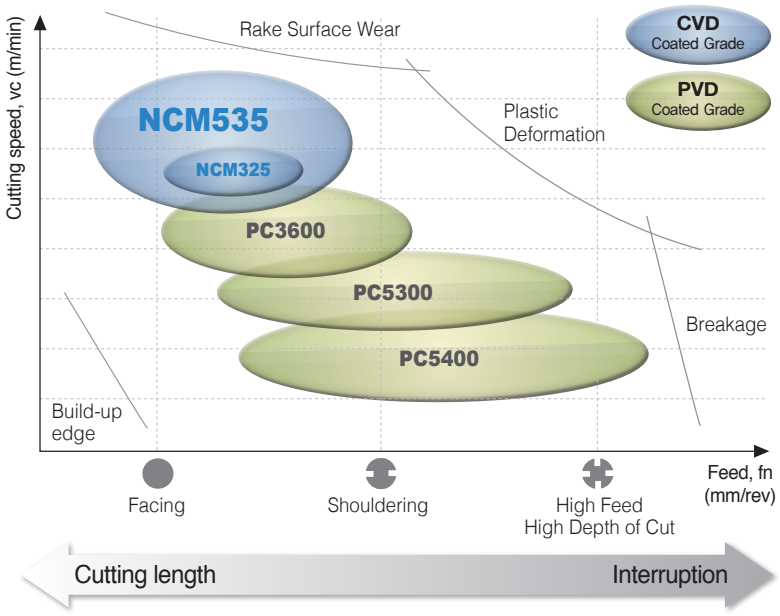
• NCM535 (CVD Milling P35 / K25) , NCM545 (CVD Milling P45 / K30) ※ See the attached #1 for details

Detailed Information

1 Features

• Application of the high-tough substrate which has high thermal conductivity and toughness
• High-performance CVD coating with outstanding wear resistance and properties at high temperature
• Excellent chipping and welding resistance due to powerful after-treatment

2 Application Range



3 Recommended Cutting Conditions

※ See the attached #1 for details

Launch Date

• From March 2019

[Attached 1]

Available Stock (Milling)

Designation		Grade
		NCM535
ONMX	060608-MF	●
	080608-MF	●
	0606ANN-MF	●
	0806ANN-MF	●
	060608-MM	●
	080608-MM	●
	0606ANN-MM	●
	0806ANN-MM	●

Designation		Grade
		NCM535
SNMX	1206ANN-MF	●
	1507ANN-MF	●
	1206ENN-MF	●
	1507ENN-MF	●
	1206QNN-MF	●
	1206ANN-MM	●
	1507ANN-MM	●
	1206ENN-MM	●
	1507ENN-MM	●
	1206QNN-MM	●

Recommended Cutting Conditions

Workpiece	Hardness [HB]	Chip breaker	Recommended Cutting Conditions		
			vc (m/min)	fz (mm/t)	ap (mm)
Low carbon steel	85 - 175	MM	200 - 400	0.12 - 0.35	RM8A 6.0mm RM8E 9.0mm RM8Q 11.5mm
High carbon steel	175 - 225		200 - 380		
Alloy steel	275 - 325		200 - 300		
Gray Cast Iron	190 - 220		250 - 350		
Malleable Cast Iron	140 - 200		200 - 300		
Low carbon steel	85 - 175	MF	250 - 400	0.12 - 0.3	
High carbon steel	175 - 225		250 - 380		
Alloy steel	275 - 325		200 - 300		
Gray Cast Iron	190 - 220		250 - 350		
Malleable Cast Iron	140 - 200		200 - 300		

[Attached 2]

Available Stock (Milling)

KORLOY	Competitor A	Competitor B	Competitor C	Competitor D	Competitor E
NCM535	GC4230	WKP35S	IC5100	T350M	TT7800
NCM545	GC4240	WKP45S	IC5400	MM4500	-

Features of chip breakers

Insert		Cutting-edge	Features
For light cutting **MF**			Due to low cutting load, it is good for light cutting and difficult-to-cut material
For general cutting **MM**			It is suitable design for general milling

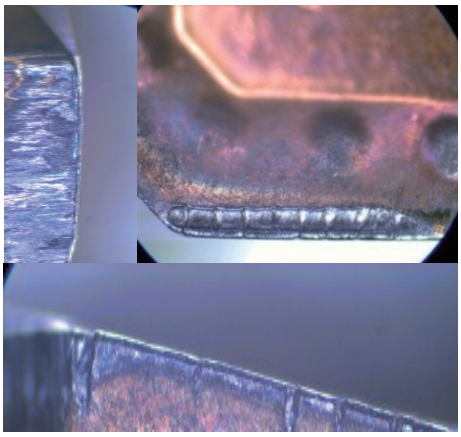
[Attached 3]

Performance Evaluation

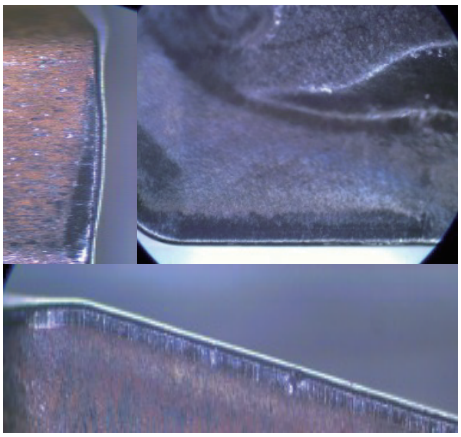
• RM8

Milling [Alloy]

- Workpiece: SCM440 [KS] 42CrMo4 [ISO] 300 x 200 x 100 mm
- Cutting conditions: vc (m/min) = 300, fz (mm/t) = 0.2
  ap (mm) = 2.0, dry
- Cutting time: 2,080cm^3 Tool after chip removal
- Tools: Insert SNMX1206ANN-MM Holder RM8ACM4125HR-M



[Competitor]

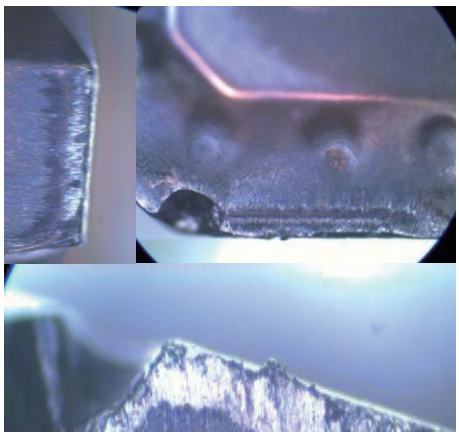


[NCM535]

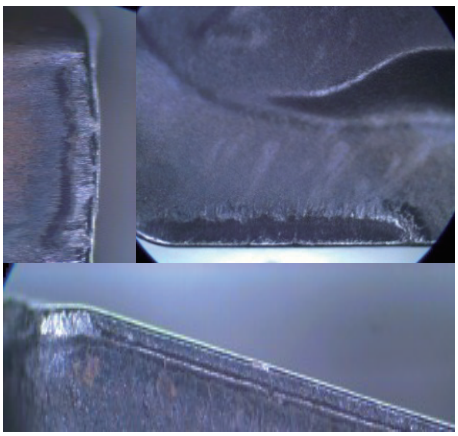
• RM8

Milling [Cast]

- Workpiece: GC250 [KS] 250 [ISO] 300 x 200 x 100 mm
- Cutting conditions: vc (m/min) = 300, fz (mm/t) = 0.2
  ap (mm) = 2.0, dry
- Cutting time: 2,080cm^3 Tool after chip removal
- Tools: Insert SNMX1206ANN-MM Holder RM8ACM4125HR-M



[Competitor]



[NCM535]