

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)

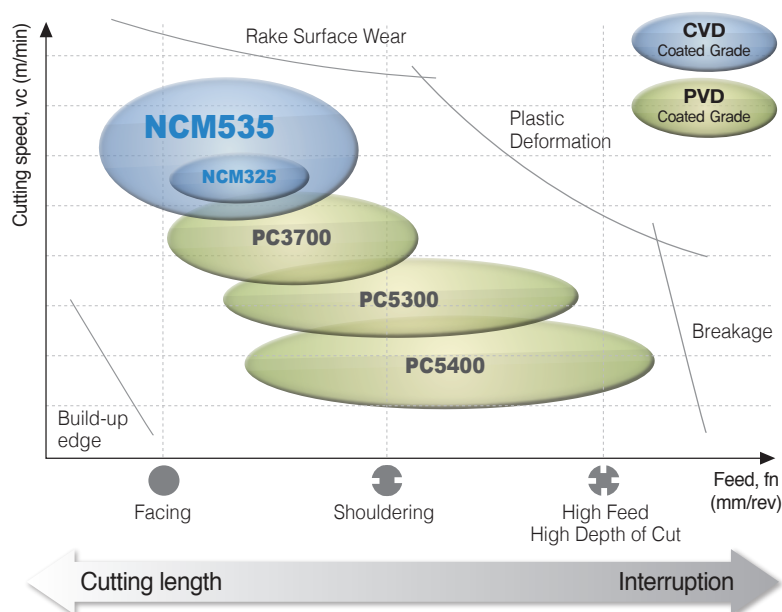
※ See the attached #1 for details

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]

Grade Comparison

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]

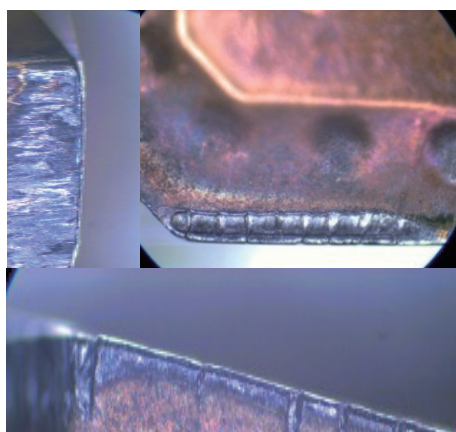
Performance Evaluation



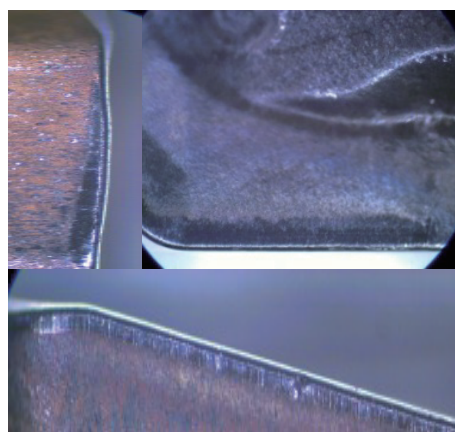
• RM8

Milling [Alloy]

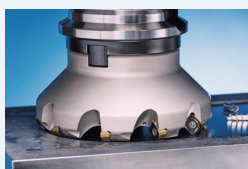
- Workpiece SCM440 [KS], 42CrMo4 [ISO], 300 x 200 x 100 mm
- Cutting conditions vc (m/min) = 300, fz (mm/t) = 0.2
 ap (mm) = 2.0, dry
- Cutting time 2,080cm³ Tool after chip removal
- Tools Insert SNMX1206ANN-MM Holder RM8ACM4125HR-M



[Competitor]



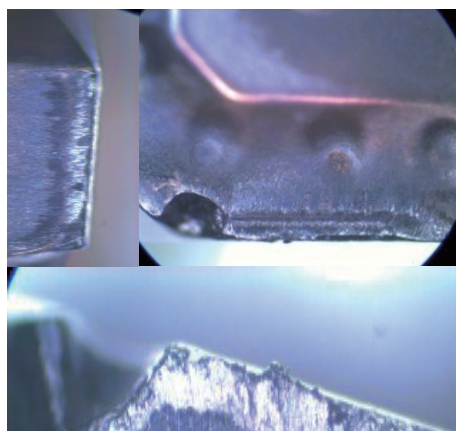
[NCM535]



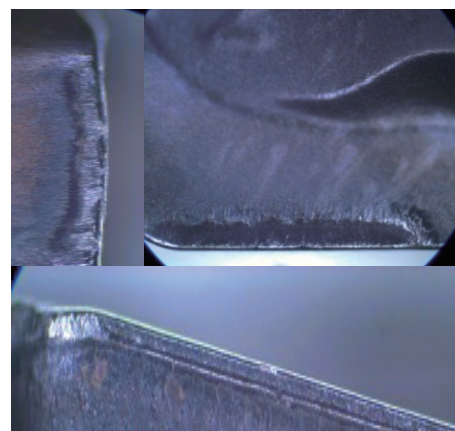
• RM8

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 2,080cm³ Tool after chip removal
- Tools Insert SNMX1206ANN-MM Holder RM8ACM4125HR-M



[Competitor]



[NCM535]