KORLOY TECH-NEWS

WE CREATE YOUR TOMORROW!

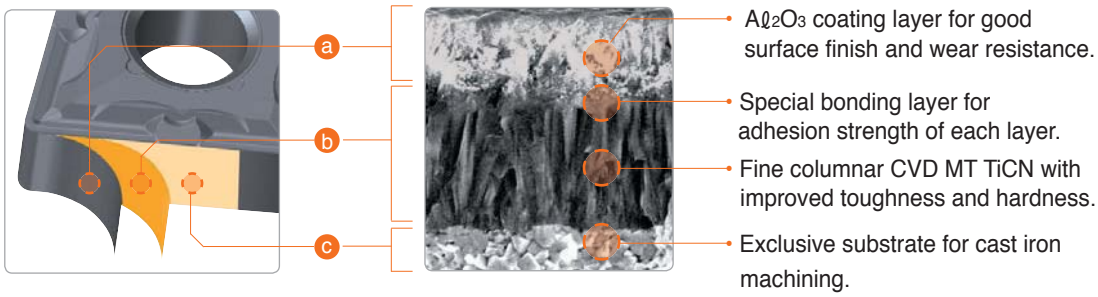
NC6205
NC6210

- K-power coating
- NC6205 ▶ Superior cutting performance in continuous and high speed machining.
- NC6210 ▶ Stable tool life in continuous and interrupted Turning.

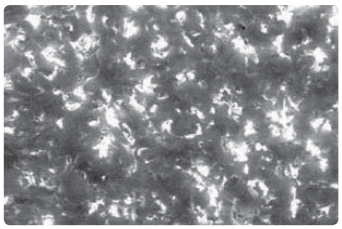
KORLOY

NC6205/NC6210

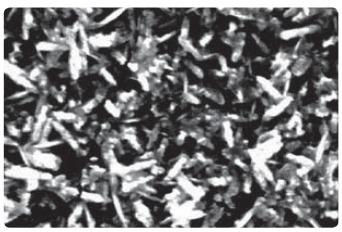
Features



- **K-black power coating**

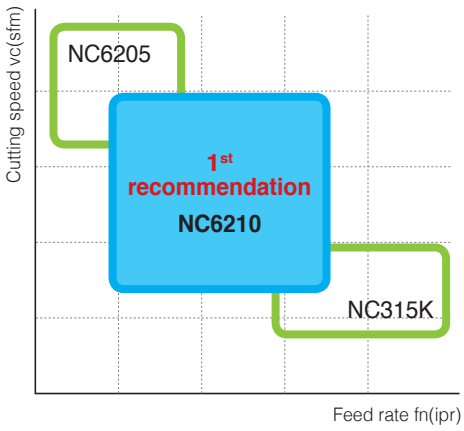


- **Outermost layer**
  - Al_2O_3 layer with superior lubrication guarantees wear resistance and chipping resistance in high speed machining.



- **Bonding layer (between MT-TiCN and Al_2O_3 layer)**
  - Special bonding layer with superb adhesion strength improves flaking resistance and chipping resistance.

Line-up of grades

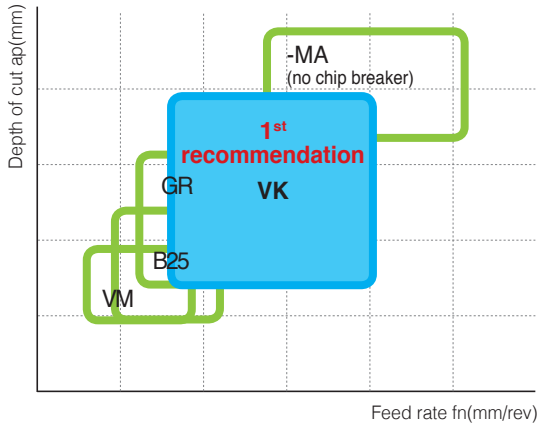


- **NC6205**
  - K-power coating on a high hardness substrate. Superior performance in continuous and high speed machining of grey cast iron and ductile cast iron.

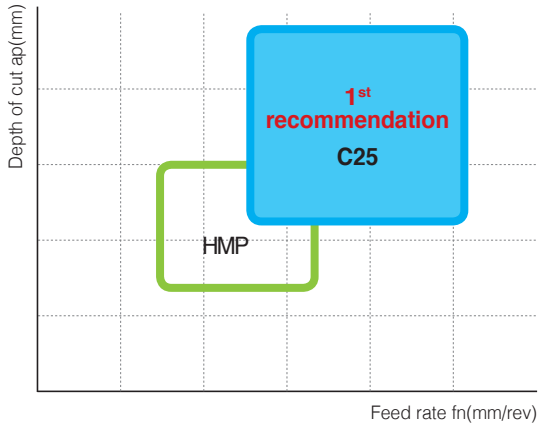
- **NC6210**
  - K-power coating on a high toughness substrate. 1st recommended grade for longer tool life in general turning of grey cast iron and ductile cast iron.

Line-up of chip breakers

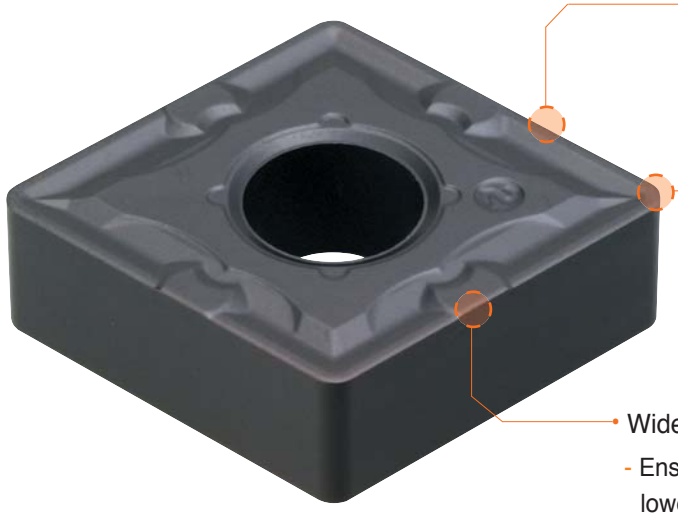
• **Negative type**



• **Positive type**



Features of chip breaker, VK



• Land with high cutting edge strength

- improved chipping resistance in interrupted machining guarantees stable machining.

• **Grooved shaped nose R**

- lowers cutting heat and cutting resistance.

• Wider supporting side on the insert surface

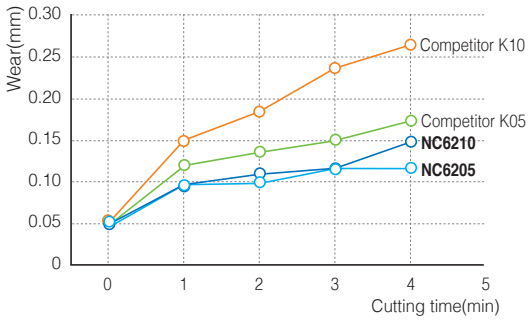
- Ensures stable machining due to better clamping, lower chattering, less cutting load and less chipping in high feed roughing.

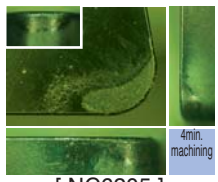
Machining Type	Grade	Recommended cutting speed vc(m/min)		Chip breaker (nose R=0.8)	Recommended feed and depth of cut rate	
		Grey cast iron	GCD		fn(mm/rev)	ap(mm)
Finishing	NC6205	200~500	180~400	VM	0.10~0.50	1.0~5.0
Medium and roughing	NC6210	150~400	140~350	VK	0.15~0.55	1.5~6.0
Roughing	NC315K	120~300	100~250	-MA	0.20~0.60	2.0~7.0

NC6205/NC6210

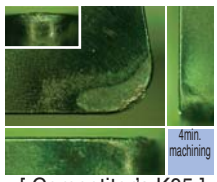
Test Result

• Wear resistance

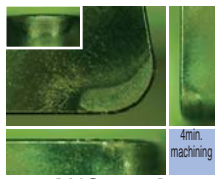




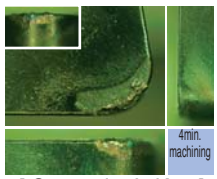
[NC6205]



[Competitor's K05]



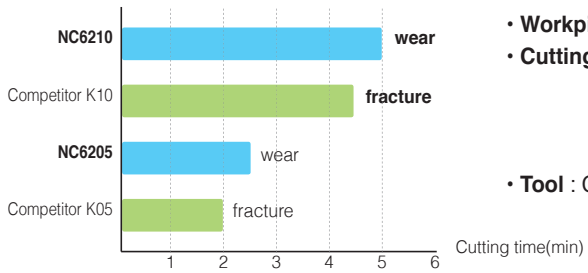
[NC6210]



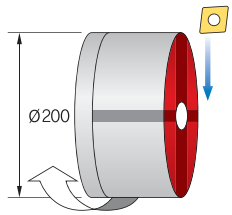
[Competitor's K10]

- **Workpiece** : Grey cast iron(GG25)
- **Cutting condition** : vc(m/min)=600, fn(mm/rev)=0.30, ap(mm)=1.5
  dry, continuous external machining
- **Tool** : CNMA120408, DCLNL3232-P12

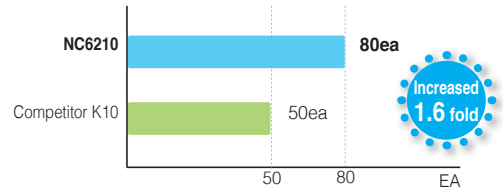
• Fracture Resistance



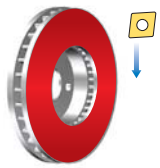
- **Workpiec** : Ductile cast iron(GGG60)
- **Cutting condition** : vc(m/min)=120
  fn(mm/rev)=0.30
  ap(mm)=1.5
  wet, interrupted facing
- **Tool** : CNMA120408, DCLNL3232-P12

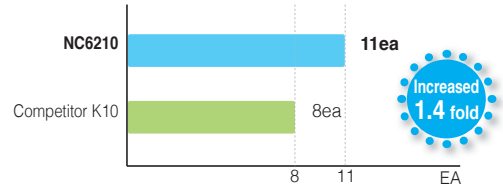


Application

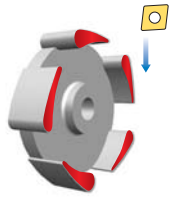


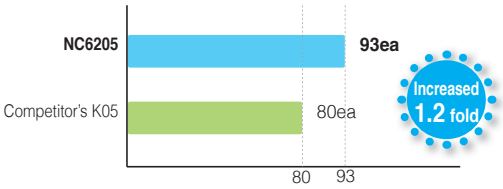
- **Workpiece** : Gray cast iron(GC250), Brake Disc
- **Cutting condition** : vc(m/min)=390
  fn(mm.rev)=0.25
  ap(mm)=200, wet
- **Tool** : CNMG120412-VK(NC6210)
  PCLNR2525-M12



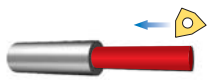


- **Workpiece** : Gray cast iron(GC250), Part of Pump
- **Cutting condition** : vc(m/min)=350
  fn(mm.rev)=0.25
  ap(mm)=0.7, wet
- **Tool** : CNMG120408-VK(NC6210)
  PCLNR2525-M12



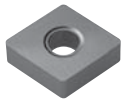
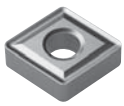
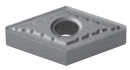
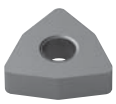
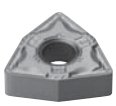


- **Workpiece** : Gray cast iron(GCD500), Shaft
- **Cutting condition** : vc(m/min)=200
  fn(mm.rev)=0.28
  ap(mm)=2.0, wet
- **Tool** : WNMG080412-VK(NC6205)
  DWLNL2525-M08

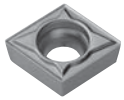
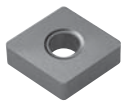
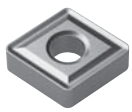


Insert Designation

• NC6205

Shape	Designation	
	CNMA	120412
	CNMG	120408-B25
		120408-GR
		120408-VK
		120412-VK
	DNMG	150412-VK
		150612-VK
	TNMG	160408-VK
	WNMA	080408
	WNMG	080408-VK
		080412-VK

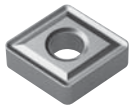
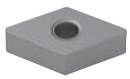
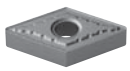
• NC6210

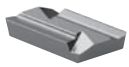
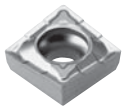
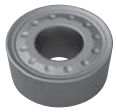
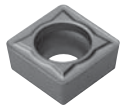
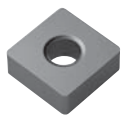
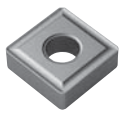
Shape	Designation	
	CCMT	060204-C25
		060204-HMP
		060208-C25
		09T304-C25
		09T304-HMP
		09T308-C25
		09T308-HMP
		120404-C25
		120404-HMP
		120408-C25
		120408-HMP
	CNMA	120404
		120408
		120412
		120416
		160612
		190608
		190612
		190616
	CNMG	120404-B25
		120404-VM
		120408-B25
		120408-GR
		120408-VK
		120408-VM
		120412-B25
		120412-GR
		120412-VK
		120412-VM
		120416-GR
		120416-VK
		160608-GR

NC6205/NC6210

Insert Designation

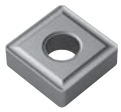
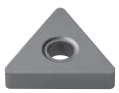
- **NC6210**

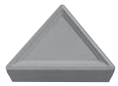
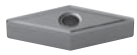
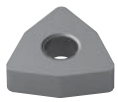
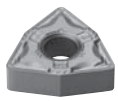
Shape	Designation	
	CNMG	160612-GR
		190608-B25
		190608-GR
		190612-B25
		190612-GR
		190612-HR
	DCMT	070204-HMP
		11T304-C25
		11T304-HMP
		11T308-C25
		11T308-HMP
	DNMA	150408
		150412
		150608
	DNMG	150404-VK
		150404-VM
		150408-B25
		150408-GR
		150408-VK
		150408-VM
		150412-GR
		150412-VK
		150604-B25
		150604-VM
		150608-B25
		150608-GR
		150608-VK
		150608-VM
		150612-B25
		150612-GR
		150612-VK

Shape	Designation	
	KNUX	160405R-11
		160410R-11
	MGMN	300-M
		400-M
		500-M
		600-M
	QCMT	070304-CM
		080304-CM
		10T304-CM
	RCMX	1204M0
		1606M0
		2006M0
	SCMT	09T304-C25
		09T308-C25
		120408-C25
		120408-HMP
	SNMA	120408
		120412
		120416
		150612
		190612
		190616
	SNMG	120404-B25
		120404-VK
		120408-B25
		120408-GR
		120408-VK
		120408-VM
		120412-B25

Insert Designation

• NC6210

Shape	Designation	
	SNMG	120412-GR
		120412-VK
		120412-VM
		190612-B25
	TCMT	090204-C25
		090208-C25
		110204-C25
		110208-C25
		16T304-C25
		16T304-HMP
		16T308-C25
		16T308-HMP
	TNMA	160404
		160408
		160412
		220408
		220412
	TNMG	160404-B25
		160404-VK
		160404-VM
		160408-B25
		160408-GR
		160408-VK
		160408-VM
		160408-VW
		160412-GR
		160412-VK
		160416-B25
		160416-VK
		220408-GR
		220412-GR
		220412-VK

Shape	Designation	
	TPMR	110304-F
	VBMT	160404
		160404-HMP
		160408
		160408-HMP
	VNMG	160404-VM
		160408-VM
		160412-VK
	WNMA	060408
		080408
		080412
	WNMG	060408-VM
		080404-VK
		080408-B25
		080408-GR
		080408-LW
		080408-VK
		080408-VM
		080412-GM
		080412-GR
		080412-LW
		080412-VK
		080412-VM

We create your tomorrow!

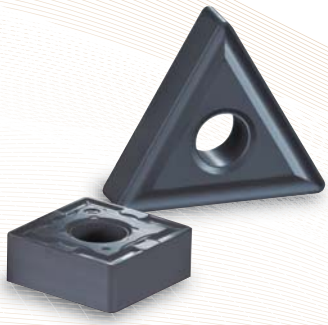
KORLOY Inc.

HEAD QUARTER
Holystar B/D, 953-1, Doksanbon-Dong,
Geumcheon-Gu, Seoul, 153-823, Korea
Tel : +82-2-522-3181
Fax : +82-2-522-3184, +82-2-3474-4744
Web : www.korloy.com E-mail : export@korloy.com

CHEONGJU FACTORY
53-16, Songjeong-Dong,
Heungdeok-Gu, Cheongju-Si,
Chungcheongbuk-Do, 361-290, Korea
Tel : +82-43-262-0141 Fax : +82-43-262-0146

JINCHEON FACTORY
767-1, Kwanghyewon-Ri, Kwanghyewon-Myun,
Jincheon-Gun, Chungcheongbuk-Do, 365-830, Korea
Tel : +82-43-535-0141 Fax : +82-43-535-0144

R&D INSTITUTE
53-16, Songjeong-Dong, Heungdeok-Gu,
Cheongju-Si, Chungcheongbuk-Do, 361-290, Korea
Tel : +82-43-262-0141 Fax : +82-43-262-0711



KORLOY AMERICA Inc.

620 Maple Avenue, Torrance, CA90503, USA
Tel : +1-310-782-3800 Toll Free : +1-888-711-0001
Fax : +1-310-782-3885
Web : www.korloyamerica.com E-mail : sales@korloy.us

KORLOY EUROPE GmbH

Heinrich-Lanz-Allee 12, 60437 Frankfurt am Main, Germany
Tel : +49-69-5069-887-0 Fax : +49-69-5069-887-29
Web : www.korloyeurope.com E-mail : europe@korloy.com

KORLOY INDIA TOOLING Pvt.Ltd.

Ground Floor, Property No. 217, Udyog Vihar Phase 4,
Gurgaon 122001, Haryana, INDIA
Tel : +91-124-4050030 Fax : +91-124-4050032
E-mail : indiasales@korloyindia.com

May.10, 2013
TN14-EM-01