

鑄鉄旋削用コーティング材種新トリオ

New coated grades for Cast Iron turning

エースコート **AC405K** / **AC415K** / **AC420K** 第3版

ACE-COAT AC405K/AC415K/AC420K

AC405K
For High Speed Turning

高速・連続切削
AC405Kによる鑄鉄の高速連続加工
High speed turning of Cast iron with AC405K

AC415K
For General Purpose Turning

汎用切削
AC415Kによる鑄鉄の一般加工
General turning of Cast iron with AC415K

AC420K
For Interrupted Turning

黒皮加工・断続切削
AC420Kによる鑄鉄の断続加工
Interrupted turning of Cast iron with AC420K

鑄鉄の高速～断続切削まで
あらゆる領域をカバー

Covers all range of machining applications from high speed cutting to interrupted cutting.

ご好評のスーパーFFコートと
特殊表面処理で従来比1.5倍の長寿命!!

The Super FF Coat and the special surface treatment provide 1.5 times longer tool life than that of conventional tools.

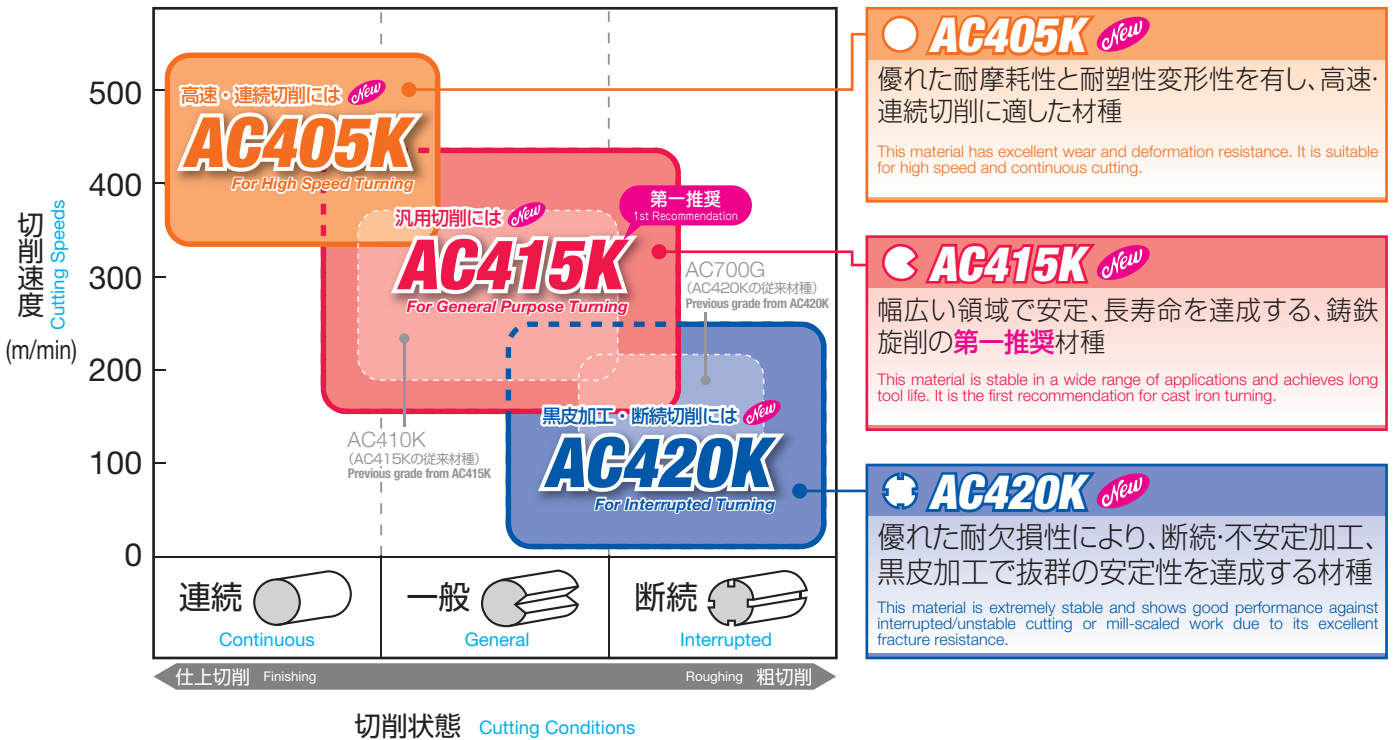
各材種12アイテム、合計36アイテム拡充!!

12 items are available for each grade, which can be expanded to 36 items in total.



エースコート ACE-COAT AC405K/AC415K/AC420K

AC405K/AC415K/AC420Kの適用領域 Application Range

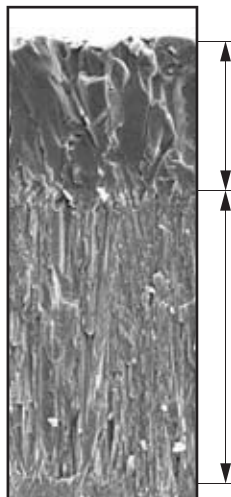


AC400Kシリーズの特長 Features

スーパーFF-TiCN膜の更なる微粒・高硬度化で、耐摩耗性を大幅に向上
 新開発の応力制御技術により、微粒 α アルミナ (FF- Al_2O_3) 膜を強化し、抜群の信頼性を実現

The finer and harder Super FF TiCN layer has significantly improved wear resistance.
 The newly developed stress control technology has strengthened the fine α -Alumina (FF- Al_2O_3) layer to provide excellent reliability.

●膜構造 Coating Structure






微粒 α アルミナ (FF- Al_2O_3) Fine α -Alumina (FF- Al_2O_3)
 耐溶着性・耐剥離性アップ!
 Improved adhesion and peel-off resistance.

スーパーFF-TiCN Super FF-TiCN
 超微粒 & 高硬度 TiCN 膜により更に
 耐摩耗性 $\times 1.5$ 倍
 Ultra-fine and hardened TiCN layer provides improved
 wear resistance of 1.5 times the conventional tools.




●コーティング応力制御技術 Coating stress control technology

AC400K シリーズコーティング AC400K Series Coating	従来コーティング Conventional coating
コーティング応力制御技術により、チッピングからの異常損傷を抑制 The coating stress control technology reduces abnormal damages due to chipping.	




ネガティブ80° 菱形 80° Diamond Type

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	CNMG 120404N-UZ	●	●	●	●	12.9	12.7	4.76	0.4
	120408N-UZ	●	●	●	●				0.8
	120412N-UZ	●	●	●	●				1.2
	120416N-UZ	●	●	●	●				1.6
	CNMG 160612N-UZ	●	●	●	●				16.1
CNMG 160616N-UZ	●	●	●	●	16.1	15.875	6.35	1.6	
	CNMG 120404N-GZ	●	●	●	●	12.9	12.7	4.76	0.4
	120408N-GZ	●	●	●	●				0.8
	120412N-GZ	●	●	●	●				1.2
	120416N-GZ	●	●	●	●				1.6
	CNMG 160608N-GZ	●	●	●	●				16.1
CNMG 160612N-GZ	●	●	●	●	16.1	15.875	6.35	1.2	
CNMG 160616N-GZ	●	●	●	●	16.1	15.875	6.35	1.6	
	CNMA 120404	●	●	●	●	12.9	12.7	4.76	0.4
	120408	●	●	●	●				0.8
	120412	●	●	●	●				1.2
	120416	●	●	●	●				1.6
	CNMA 160612	●	●	●	●				16.1
CNMA 190612	●	●	●	●	19.3	19.05	6.35	1.6	
CNMA 190616	●	●	●	●	19.3	19.05	6.35	1.6	




ネガティブ55° 菱形 55° Diamond Type

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	DNMG 150404N-UZ	●	●	●	●	15.5	12.7	4.76	0.4
	150408N-UZ	●	●	●	●				0.8
	150412N-UZ	●	●	●	●				1.2
	150416N-UZ	●	●	●	●				1.6
	DNMG 150608N-UZ	●	●	●	●				15.5
DNMG 150612N-UZ	●	●	●	●	15.5	12.7	6.35	1.2	
	DNMG 150404N-GZ	●	●	●	●	15.5	12.7	4.76	0.4
	150408N-GZ	●	●	●	●				0.8
	150412N-GZ	●	●	●	●				1.2
	150416N-GZ	●	●	●	●				1.6
	DNMG 150608N-GZ	●	●	●	●				15.5
DNMG 150612N-GZ	●	●	●	●	15.5	12.7	6.35	1.2	
	DNMA 150404	●	●	●	●	15.5	12.7	4.76	0.4
	150408	●	●	●	●				0.8
	150412	●	●	●	●				1.2
	150416	●	●	●	●				1.6
	DNMA 150608	●	●	●	●				15.5
DNMA 150612	●	●	●	●	15.5	12.7	6.35	1.2	




ネガティブ正方形 Square Type

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions						
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius			
	SNMG 120408N-UZ	●	●	●	●	12.7	12.7	4.76	0.8			
	120412N-UZ	●	●	●	●				1.2			
	120416N-UZ	●	●	●	●				1.6			
	SNMG 190612N-UZ	●	●	●	●				19.05	19.05	6.35	1.2
	SNMG 190616N-UZ	●	●	●	●				19.05	19.05	6.35	1.6
	SNMG 120408N-GZ	●	●	●	●	12.7	12.7	4.76	0.8			
	120412N-GZ	●	●	●	●				1.2			
	120416N-GZ	●	●	●	●				1.6			
	SNMG 150612N-GZ	●	●	●	●				15.875	15.875	6.35	1.2
	SNMG 150616N-GZ	●	●	●	●				15.875	15.875	6.35	1.6
	SNMG 190612N-GZ	●	●	●	●	19.05	19.05	6.35	1.2			
	190616N-GZ	●	●	●	●				1.6			
	SNMA 120404	●	●	●	●				12.7	12.7	4.76	0.4
	120408	●	●	●	●							0.8
	120412	●	●	●	●							1.2
120416	●	●	●	●	1.6							
120420	●	●	●	●	2.0							




ネガティブ三角形 Triangular Type

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions						
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius			
	TNMG 160404N-UZ	●	●	●	●	16.5	9.525	4.76	0.4			
	160408N-UZ	●	●	●	●				0.8			
	160412N-UZ	●	●	●	●				1.2			
	160416N-UZ	●	●	●	●				1.6			
	TNMG 160420N-UZ	●	●	●	●				2.0			
	TNMG 220408N-UZ	●	●	●	●	22.0	12.7	4.76	0.8			
	220412N-UZ	●	●	●	●				1.2			
	220416N-UZ	●	●	●	●				1.6			
	TNMG 160404N-GZ	●	●	●	●				16.5	9.525	4.76	0.4
	160408N-GZ	●	●	●	●							0.8
160412N-GZ	●	●	●	●	1.2							
TNMG 220408N-GZ	●	●	●	●	22.0	12.7	4.76	0.8				
TNMG 220412N-GZ	●	●	●	●	22.0	12.7	4.76	1.2				
TNMG 220416N-GZ	●	●	●	●	22.0	12.7	4.76	1.6				
	TNMA 160404	●	●	●	●	16.5	9.525	4.76	0.4			
	160408	●	●	●	●				0.8			
	160412	●	●	●	●				1.2			
	160416	●	●	●	●				1.6			
	TNMA 220408	●	●	●	●				22.0	12.7	4.76	0.8
TNMA 220412	●	●	●	●	22.0	12.7	4.76	1.2				
TNMA 220416	●	●	●	●	22.0	12.7	4.76	1.6				


ネガティブ35° 菱形 35° Diamond Type

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	VNMG 160404N-UZ	●	●	●	●	16.6	9.525	4.76	0.4
	160408N-UZ	●	●	●	●				0.8
	160412N-UZ	●	●	●	●				1.2
	VNMG 160404N-GZ	●	●	●	●	16.6	9.525	4.76	0.4
	160408N-GZ	●	●	●	●				0.8
	160412N-GZ	●	●	●	●				1.2
	VNMA 160404	●	●	●	●	16.6	9.525	4.76	0.4
	160408	●	●	●	●				0.8
	160412	●	●	●	●				1.2


ネガティブ六角形 Trigon Type

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	WNMG 080404N-UZ	●	●	●	●	8.7	12.7	4.76	0.4
	080408N-UZ	●	●	●	●				0.8
	080412N-UZ	●	●	●	●				1.2
	WNMG 080404N-GZ	●	●	●	●	8.7	12.7	4.76	0.4
	080408N-GZ	●	●	●	●				0.8
	080412N-GZ	●	●	●	●				1.2
	WNMA 080408	●	●	●	●	8.7	12.7	4.76	0.8
	080412	●	●	●	●				1.2
	080416	●	●	●	●				1.6

ネガティブ正方形 (穴なし) Square Type (without Insert Hole)

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	SNMN 120408	●	●	●	●	12.7	12.7	4.76	0.8
	120412	●	●	●	●				1.2
	120416	●	●	●	●				1.6







ネガティブ三角形 (穴なし) Triangular Type (without Insert Hole)

形状 Appearance	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
		AC405K	AC415K	AC420K	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	TNMN 160408	●	●	●	●	16.5	9.525	4.76	0.8
	160412	●	●	●	●				1.2
	160416	●	●	●	●				1.6




●印: 標準在庫品 ●印: 標準在庫品 (拡充品) ●印: 将来、AC405K/AC415Kに置換え予定 無印: 受注生産品
 ●mark : Standard stocked item, ●mark : Standard stocked item(expansion item) ●mark : Scheduled to be replaced as follows: AC410K by AC405K and AC415K, Blank : Made to order

ポジティブチップ Positive Insert


ポジティブ80° 菱形 80° Diamond Type

形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	7°	CCMT 09T304N-MU	●	●	●	●	9.7	9.525	3.97	0.4
		09T308N-MU	●	●	●	●				0.8
	7°	CCMW 060204	●	●	●	●	6.4	6.35	2.38	0.4
		09T304	●	●	●	●	9.7	9.525	3.97	0.8
	11°	CPMT 080204N-MU	●	●	●	●	8.0	7.94	2.38	0.4
		080208N-MU	●	●	●	●				0.8
	11°	CPMT 090304N-MU	●	●	●	●	9.7	9.525	3.18	0.4
		090308N-MU	●	●	●	●				0.8
	7°	CPMW 080204	●	●	●	●	8.0	7.94	2.38	0.4
		080208	●	●	●	●				0.8
	7°	CPMW 090304	●	●	●	●	9.7	9.525	3.18	0.4
		090308	●	●	●	●				0.8




ポジティブ55° 菱形 55° Diamond Type

形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	7°	DCMT 11T304N-MU	●	●	●	●	11.6	9.525	3.97	0.4
		11T308N-MU	●	●	●	●				0.8
	7°	DCMW 070204	●	●	●	●	7.7	6.35	2.38	0.4
		070208	●	●	●	●				0.8
	7°	DCMW 11T304	●	●	●	●	11.6	9.525	3.97	0.4
		11T308	●	●	●	●				0.8





ポジティブ円形 Round Type

形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	7°	RCMX 1003M0N-RP	●	●	●	●	10.0	10.0	3.18	
		RCMX 1204M0N-RP	●	●	●	●	12.0	12.0	4.76	
		RCMX 1606M0N-RP	●	●	●	●	16.0	16.0	6.35	


ポジティブ正方形 Square Type

形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	7°	SCMT 09T308N-MU	●	●	●	●	9.525	9.525	3.97	0.8
		SCMT 120408N-MU	●	●	●	●	12.7	12.7	4.76	0.8
	7°	SCMW 09T308	●	●	●	●	9.525	9.525	3.97	0.8
		SCMW 120408	●	●	●	●	12.7	12.7	4.76	0.8
	7°	SCMW 120412	●	●	●	●	12.7	12.7	4.76	1.2



ポジティブ三角形 Triangular Type

形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	7°	TCMW 110204	●	●	●	●	11.0	6.35	2.38	0.4
		110208	●	●	●	●				0.8
		TCMW 16T304	●	●	●	●				0.4
		16T308	●	●	●	●	16.5	9.525	3.97	0.8
	7°	TCMW 16T312	●	●	●	●				1.2
		TPMT 110304N-MU	●	●	●	●	11.0	6.35	3.18	0.4
	11°	TPMT 110308N-MU	●	●	●	●	11.0	6.35	3.18	0.8
		TPMT 160404N-MU	●	●	●	●	16.5	9.525	4.76	0.4
	11°	TPMT 160408N-MU	●	●	●	●	16.5	9.525	4.76	0.8



ポジティブ35° 菱形 35° Diamond Type

形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	5°	VBW 160404	●	●	●	●	16.6	9.525	4.76	0.4
		160408	●	●	●	●				0.8

ポジティブ正方形 (穴なし) Square Type (without Insert Hole)

形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	11°	SPMN 090304	●	●	●	●	9.525	9.525	3.18	0.4
		090308	●	●	●	●				0.8
		SPMN 120304	●	●	●	●	12.7	12.7	3.18	0.4
		120308	●	●	●	●				0.8
	11°	SPMN 120312	●	●	●	●				1.2

ポジティブ三角形 (穴なし) Triangular Type (without Insert Hole)

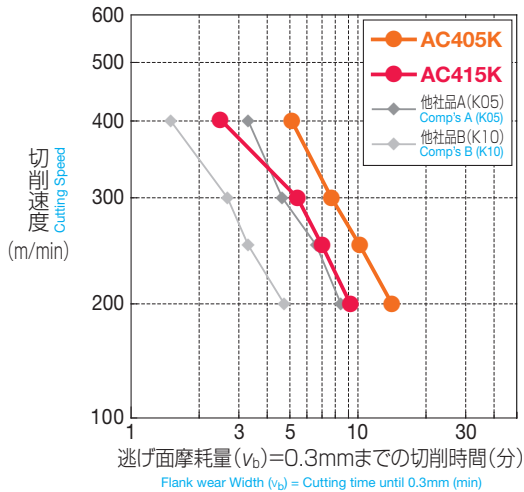
形状 Appearance	逃げ角 Relief angle	型番 Catalogue No.	在庫 Stock				寸法 (mm) Dimensions			
			AC405K New	AC415K New	AC420K New	AC410K	切刃長 Cutting edge length	内接円 Inscribed circle	厚さ Thickness	ノーズ半径 Nose radius
	11°	TPMN 110304	●	●	●	●	11.0	6.35	3.18	0.4
		110308	●	●	●	●				0.8
		TPMN 160304	●	●	●	●	16.5	9.525	3.18	0.4
		160308	●	●	●	●				0.8
	11°	TPMN 160312	●	●	●	●				1.2

●印：標準在庫品 ●印：標準在庫品(拡充品) ●印：将来、AC405K/AC415Kに置換え予定 無印：受注生産品

●mark : Standard stocked item, ●mark : Standard stocked item(expansion item) ●mark : Scheduled to be replaced as follows: AC410K by AC405K and AC415K, Blank : Made to order

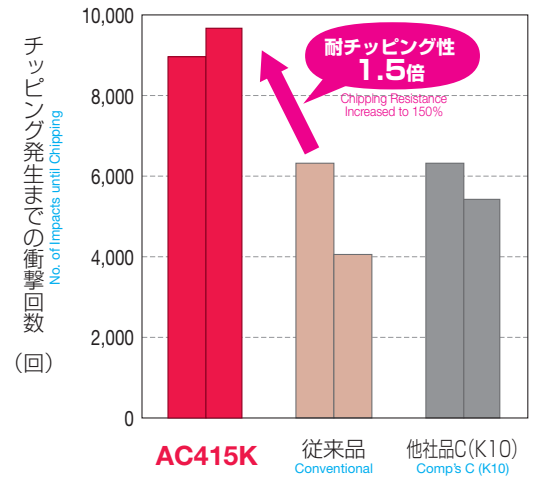
切削性能 Cutting Performance

AC405K/AC415Kの耐摩耗性 Wear Resistance of AC405K/AC415K



被削材: FCD450(丸棒) チップ: CNMG120408
 Work material: FCD450(丸棒) Insert: CNMG120408
 切削条件: v_c=200~400m/min, f=0.30mm/rev, a_p=1.5mm, Wet
 Cutting condition

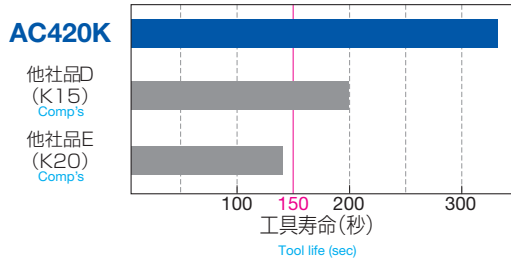
AC415Kの耐チッピング性 Chipping Resistance of AC415K



被削材: FCD450 チップ: CNMG120408
 Work material: FCD450 Insert: CNMG120408
 切削条件: v_c=300m/min, f=0.25mm/rev, a_p=1.5mm, Wet
 Cutting condition

AC420Kの耐欠損性 Fracture resistance of AC420K

FCD450 溝材 (強断続加速試験) FCD450 Grooved (Heavy Interrupted Acceleration Test)



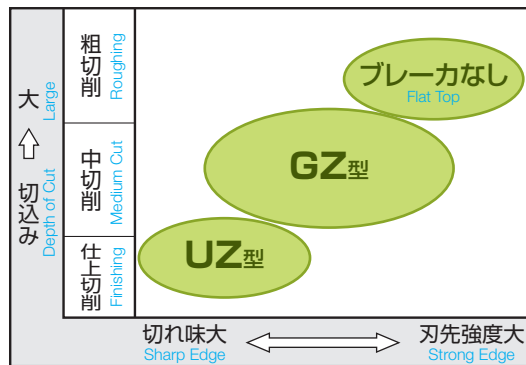
刃先損傷状態 (150秒時点) Edge Comparison (150 sec)



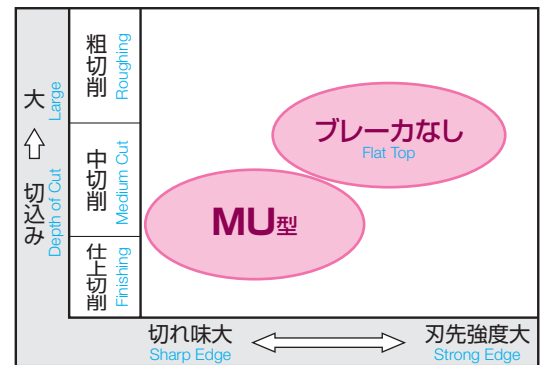
被削材: FCD450 ホルダー: PCLNR2525-43 チップ: CNMG120408
 Work material: FCD450 Holder: PCLNR2525-43 Insert: CNMG120408
 切削条件: v_c=350m/min, f=0.25mm/rev, a_p=1.5mm, Wet
 Cutting condition

ブレイカ選択ガイド Chipbreaker Selection

ネガティブタイプ Negative Type



ポジティブタイプ Positive Type



推奨条件 Recommended Cutting Conditions

(下限値 - 推奨値 - 上限値)
(min.-optimum-max.)

用途 Grade	切削状態 Grade	材種 Grade	ブレイカ Breaker	FC(普通鑄鉄) Gray Cast Iron		FCD(ダクタイル鑄鉄) Ductile Cast Iron	
				切削速度 v _c (m/min) Cutting Speed	送り量 f(mm/rev) Feed rate	切削速度 v _c (m/min) Cutting Speed	送り量 f(mm/rev) Feed rate
仕上げ切削 Finishing	連続 Continuous	AC405K	UZ	230-400-570	0.1-0.25-0.4	170-350-500	0.1-0.25-0.4
	一般 General	AC415K	UZ	200-350-500	0.1-0.25-0.4	150-300-450	0.1-0.25-0.4
	断続 Interrupted	AC415K	GZ	150-275-400	0.1-0.30-0.5	150-250-350	0.1-0.30-0.5
中切削 Medium Cut	連続 Continuous	AC405K	GZ	170-315-460	0.1-0.30-0.5	170-285-400	0.1-0.30-0.5
	一般 General	AC415K	GZ	150-275-400	0.1-0.30-0.5	150-250-350	0.1-0.30-0.5
	断続 Interrupted	AC420K	GZ	100-200-300	0.1-0.30-0.5	80-150-220	0.1-0.30-0.5
粗(黒皮)切削 Roughing Coasted work cutting	連続 Continuous	AC415K	GZ	150-275-400	0.1-0.30-0.5	150-250-350	0.1-0.30-0.5
	一般 General	AC420K	GZ	100-200-300	0.1-0.30-0.5	80-150-220	0.1-0.30-0.5
	断続 Interrupted	AC420K	なし	100-175-250	0.2-0.35-0.6	80-130-180	0.2-0.35-0.6

使用実例 Application Examples

AC405Kの使用実例 Application examples of AC405K

●FC200 コンプレッサ部品(プーリー) Compressor part	●FCD650 リング Ring	●FCD700 インプットシャフト Shaft
<p>加工数(個) Tool life (pcs/q)</p> <p>AC405K 他社品K05 comp's K05</p>	<p>加工数(個) Tool life (pcs/q)</p> <p>AC405K 他社品K05 comp's K05</p>	<p>加工数(個) Tool life (pcs/q)</p> <p>AC405K 他社品K10 comp's K10</p>
使用工具: CNMG120412N-GZ (AC405K) Insert 切削条件: $v_c=500\text{m/min}$, $f=0.25\text{mm/rev}$ $a_p \sim 2.0\text{mm}$ Dry	使用工具: WNMG080408N-UZ (AC405K) Insert 切削条件: $v_c=340\text{m/min}$, $f=0.3\text{mm/rev}$ $a_p=0.2\text{mm}$ Wet	使用工具: DNMG150408N-UZ (AC405K) Insert 切削条件: $v_c=200\text{m/min}$, $f=0.45\text{mm/rev}$ $a_p=0.25 \sim 0.40\text{mm}$ Wet
AC405Kは耐摩耗性の向上により、1.5倍の長寿命化を達成 AC405K has improved the wear resistance to achieve 1.5 times the tool life of conventional tools.	AC405Kはチッピングの抑制と耐摩耗性の向上により、寿命不安定を解消し、2.5倍の安定長寿命化を達成 AC405K has reduced chipping and improved wear resistance for stable tool life. It has achieved longer and stable tool life of 2.5 times the conventional tools.	AC405Kはチッピングの抑制と耐摩耗性の向上により、1.8倍の長寿命化を達成 AC405K has reduced chipping and improved wear resistance to achieve 1.8 times tool life of the conventional tools.

AC415Kの使用実例 Application examples of AC415K

●FC200 ブレーキディスク Brake disc	●FCD450 デフケース Differential gear case	●FCD500 ハブ Hub
<p>加工数(個) Tool life (pcs/q)</p> <p>AC415K 他社品K10 comp's K10</p>	<p>加工数(個) Tool life (pcs/q)</p> <p>AC415K 他社品K10 comp's K10</p>	<p>加工数(個) Tool life (pcs/q)</p> <p>AC415K 他社品K10 comp's K10</p>
使用工具: WNMA080412 (AC415K) Insert 切削条件: $v_c=450\text{m/min}$, $f=0.25\text{mm/rev}$ $a_p \sim 1.5\text{mm}$ Dry	使用工具: CNMG120408N-GZ (AC415K) Insert 切削条件: $v_c=240\text{m/min}$, $f=0.3\text{mm/rev}$ $a_p=2.0 \sim 3.0\text{mm}$ Wet	使用工具: CNMA120408 (AC415K) Insert 切削条件: $v_c=230\text{m/min}$, $f=0.2 \sim 0.3\text{mm/rev}$ $a_p=1.5 \sim 2.0\text{mm}$ Wet
AC415Kは耐摩耗性の向上により、1.4倍の長寿命化を達成 AC415K has improved wear resistance to achieve 1.4 times tool life of the conventional tools.	AC415Kはチッピングの抑制と耐摩耗性の向上により、寿命不安定を解消し、1.6倍の安定長寿命化を達成 AC415K has reduced chipping and improved wear resistance for stable tool life. It has achieved longer and stable tool life of 1.6 times the conventional tools.	AC415Kは一部断続黒皮加工において、耐チッピング性、耐摩耗性の向上により2倍寿命を達成 AC415K has achieved 2 times tool life by improving chipping resistance and wear resistance in some interrupted cutting and mill-scaled work.

AC420Kの使用実例 Application examples of AC420K

●FCD700 カムシャフト Cum shaft	●FCD450 ドライブsprocket Drive sprocket	●FCD500 シャフト Shaft
<p>加工数(個) Tool life (pcs/q)</p> <p>AC420K 他社品K15 comp's K15</p>	<p>加工数(個) Tool life (pcs/q)</p> <p>安定寿命 Stable tool life 不安定寿命 UnStable tool life</p> <p>AC420K 他社品K15 comp's K15</p>	<p>加工数(個) Tool life (pcs/q)</p> <p>AC420K 他社品K15 comp's K15</p>
使用工具: WNMA080408 (AC420K) Insert 切削条件: $v_c=100 \sim 250\text{m/min}$, $f=0.15 \sim 0.30\text{mm/rev}$ $a_p=1.0\text{mm}$ Wet	使用工具: WNMA080412 (AC420K) Insert 切削条件: $v_c=200\text{m/min}$, $f=0.32\text{mm/rev}$ $a_p=3.0\text{mm}$ Wet	使用工具: DNMG150412N-GZ (AC420K) Insert 切削条件: $v_c=100 \sim 270\text{m/min}$, $f=0.15 \sim 0.40\text{mm/rev}$ $a_p=1.5\text{mm}$ Wet
AC420Kは高硬度・黒皮切削で、2倍の長寿命 200% increase in tool life using AC420K -application roughing OD turning of high hardness and casted work.	AC420Kは黒皮の不安定加工で、安定した2倍の長寿命 200% increase in tool life using AC420K -application unstable and casted work cutting.	AC420Kは強断続加工において、安定した1.3倍の長寿命 130% increase in tool life using AC420K -application hardly interrupted turning.

◆安全にお使いいただくために◆



- 高温の切りくずが飛散したり長く伸びた切りくずが排出されることがありますので、安全カバーや保護メガネ等の保護具を使用し、防災・防火に十分ご配慮ください。
- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.
- 鋭い切れ刃を持っているため取扱いにご注意ください。
- Please handle with care as this product has sharp edges.
- 使用方法を誤ったり、使用条件が不適切な場合、工具破損、飛散を招きますので推奨条件の範囲内でご使用ください。
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.
- 不水溶性の切削液をご使用になる場合は、自動消火装置を設置するなどの対策を講じて頂き、火災にくれくれもご注意ください。
- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.

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