

ALORIS CARBIDE INSERTS

A-2 A specially formulated grade of tungsten carbide with a unique combination of high strength and abrasion resistance. The A-2 is an excellent choice for cast iron, high temperature alloys, and non-ferrous materials.


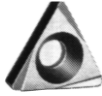
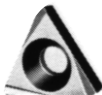

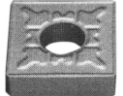
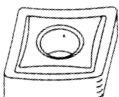
A-2 – An uncoated grade used for machining 200 + 300 series stainless steel; cast iron (gray), malleable irons, ductile irons, brass, bronze, carbon, plastic, fiberglass, high temp alloy, nickel and cobalt base. [i.e. rene 41, (inconel w, x, 702, 718) (m 252 – washpaloy) hastelloy, inconel 600, TD-2, HS21, HS 31, HS 36, L 605) titanium (i.e. (Ti 5 A1-2.5 SN) (Ti 6-2-4-2) (Ti 6A1-4V) (Ti 6 A1-6V-25n) (Ti 7 A1-4 Mo) (Ti 8 A1 Mo-1V) (Ti A 55) (Ti 5A) (Ti 140A) aluminum (i.e. 2017T, 2042T, 6061T]

A-6 A specially formulated grade of tungsten carbide with an excellent combination of toughness and hardness for turning, boring, and grooving on steel and alloyed cast iron. The A-6 may be utilized at moderate cutting speeds with medium feeds.

A-6 – An uncoated grade used for machining low, medium, and high carbon steel [i.e. 1000, 1100, 1200, 1500 series], alloy steel [i.e. 1300, 2000, 3000, 4000, 5000, 8000 series], cast steel [i.e. carbon and alloy], nodular iron.

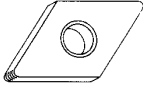
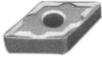




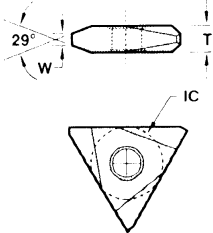
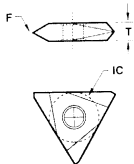
767 A specially formulated substrate carbide grade with a (gold) multi-layer coating with a broad application range for turning, milling, grooving, and cut-off purposes. The 767 exhibits high hardness at elevated temperatures and it also works well in most large depths of cut. This grade accommodates moderate to high speed machining on low, medium, and high carbon steels as well as alloy and tool steels.

767 – A coated grade used for machining low, medium, and high carbon steel [i.e. 1000, 1100, 1200, 1500 series], alloy steel [i.e. 1300, 2000, 3000, 4000, 5000, 8000 series], cast steel [i.e. carbon and alloy], nodular iron.

SHAPE OR CHIPBREAKER DEPICTED	ORDER #	DIMENSIONS				GRADES	
		I.C.	THICKNESS	RADIUS	HOLE	GRADE A2/A6†	GRADE 767†
ATPG  ATPGHL  ATPGHR 	ASD-8P*	1/2	1/8	1/32		16.40	17.45
	ASD-12P*	3/4	3/16	3/64		17.75	31.50
	AT-4R*					25.40	29.59
	ATD-8P*	1/2	3/16	1/32	.7188	11.31	17.37
	ATDHL-8P*	1/2	3/16	1/32	.7188	15.42	21.70
	ATPG-321*	5/32	1/16	1/64	.2188	7.81	11.14
	ATPG-431*	1/4	3/32	1/64	.3594	8.31	12.13
	ATPG-541*	5/16	1/8	1/64	.5469	8.31	12.13
	ATPG-642*	3/8	1/8	1/32	.5312	9.06	13.38
	ATPGHL-431*	1/4	3/32	1/64	.3594	11.64	15.47
	ATPGHL-541*	5/16	1/8	1/64	.5469	12.07	15.40
	ATPGHL-642*	3/8	1/8	1/32	.5312	12.81	21.51
ATPGHR-431*	1/4	3/32	1/64	.3594	11.64	15.47	
ATPGHR-541*	5/16	1/8	1/64	.5469	12.07	15.40	
CHIPBREAK MN 	CNMG-431 MN*	1/2	3/16	1/64	.203	9.70	14.40
	CNMG-432 MN*	1/2	3/16	1/32	.203	9.70	14.40
	CNMG-433 MN*	1/2	3/16	3/64	.203	9.70	14.40
CHIPBREAK RN 	CNMG-434 RN*	1/2	3/16	1/16	.203	9.70	14.40
	CNMG-542 RN*	5/8	1/4	1/32	.250	15.40	18.70
	CNMG-543 RN*	5/8	1/4	3/64	.250	15.40	18.70
	CNMG-642 RN*	3/4	1/4	1/32	.312	21.20	25.88
CHIPBREAK MN	CNMG-643 MN*	3/4	1/4	3/64	.312	21.20	25.88
CHIPBREAK RN	CNMG-644 RN*	3/4	1/4	1/16	.312	21.20	25.88
CNMZ 	CNMZ-432 MP*	1/2	3/16	1/32	.203	9.27	13.06
	CNMZ-543 MP*	5/8	1/4	3/64	.250	14.49	21.04
	CNMZ-642 MP*	3/4	1/4	1/32	.312	17.91	26.33
	CNMZ-643 MP*	3/4	1/4	3/64	.312	17.91	26.33

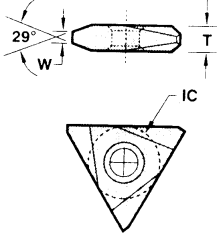
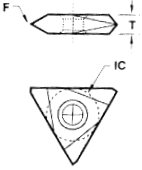
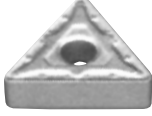



†Quantities of 100 and over, call for price. Inserts sold in packages of 10. Prices are per piece.

ALORIS CARBIDE INSERTS

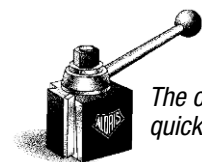
SHAPE OR CHIPBREAKER DEPICTED	ORDER #	DIMENSIONS				GRADES	
		I.C.	THICKNESS	RADIUS	HOLE	GRADE A2/A6†	GRADE 767†
 DNGA	DNGA-532*	5/8	3/16	1/32	.250	16.70	32.45
	DNGA-542*	5/8	1/4	1/32	.250	19.18	29.37
	DNGA-543*	5/8	1/4	3/64	.250	19.18	29.37
 DNMG	DNMG-331 LR-11*	3/8	3/16	1/64	.750	7.95	11.46
	DNMG-332 LR-11*	3/8	3/16	1/32	.150	7.95	11.46
CHIPBREAK MN	DNMG-333 MN*	3/8	3/16	3/64	.150	7.95	11.46
 DNMG	DNMG-431 LR-13*	1/2	3/16	1/64	.203	-	14.73
	DNMG-432 LR-13*	1/2	3/16	1/32	.203	-	14.73
10° POSITIVE	DNMS-542*	5/8	1/4	1/32	.250	20.45	28.75
CHIPBREAK MN	DNMZ-432 MP*	1/2	3/16	1/32	.203	19.61	24.82
CHIPBREAK MN	DNMZ-532 MP*	5/8	3/16	1/32	.250	20.45	28.75
CHIPBREAK MN	DNMZ-542 MP*	5/8	1/4	1/32	.250	20.45	28.75
 NT	NT-2 R & L HND*					16.28	21.04
	NT-3 R & L HND*					20.09	28.05
	NT-4 R & L HND*					27.58	39.57
 NT	NT-2 POS R & L HND*					18.95	23.62
	NT-3 POS R & L HND*					23.15	31.10
	NT-4 POS R & L HND*					31.81	43.78
 TNG	TNG 321*	3/8	1/8	1/64		6.50	10.55
	TNG 322*	3/8	1/8	1/32		6.50	10.55
	TNG 323*	3/8	1/8	3/64		6.50	10.55
	TNG 431*	1/2	3/16	1/64		9.65	16.20
	TNG 432*	1/2	3/16	1/32		9.65	16.20
	TNG 544*	5/8	1/4	1/16		15.35	24.90
 TNMA	TNMA 32 NT 6*	3/8	.127		.150	14.21	18.66
	TNMA 32 NT 8*	3/8	.127		.150	14.21	18.66
	TNMA 32 NT 10*	3/8	.127		.150	14.21	18.66
	TNMA 32 NT 12*	3/8	.127		.150	14.21	18.66
	TNMA 43 NT 4*	1/4	.189		.203	17.76	24.78
	TNMA 43 NT 5*	1/4	.189		.203	17.76	24.78
	TNMA 43 NT 6*	1/4	.189		.203	17.76	24.78
	TNMA 43 NT 8*	1/4	.189		.203	17.76	24.78
	TNMA 43 NT 10*	1/4	.189		.203	17.76	24.78
 TNMA	TNMA 32 NV*	3/8	.127	8-36	.150	11.03	15.47
	TNMA 43 NV*	1/2	.189	5-24	.203	15.57	22.59
	TNMA 54 NV*	5/8	.252	4-20	.250	26.43	36.47
	TNMA 64 NV*	3/4	.250	4-20	.312	38.11	52.47
	TNMA 66 NV*	3/4	.375	3-12	.312	41.71	58.40

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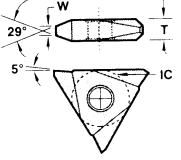
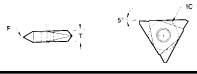
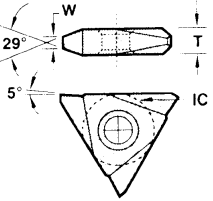
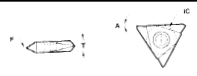

SHAPE OR CHIPBREAKER DEPICTED	ORDER #	DIMENSIONS				GRADE	
		I.C.	THICK- NESS	RADIUS	HOLE	GRADE A2/A6†	GRADE 767†
 TNMC	TNMC 32 NT 6 *	3/8	.127		.150	14.21	18.66
	TNMC 32 NT 8 *	3/8	.127		.150	14.21	18.66
	TNMC 32 NT 10 *	3/8	.127		.150	14.21	18.66
	TNMC 32 NT 12 *	3/8	.127		.150	14.21	18.66
	TNMC 43 NT 4 *	1/4	.189		.203	17.76	24.78
	TNMC 43 NT 5 *	1/4	.189		.203	17.76	24.78
	TNMC 43 NT 6 *	1/4	.189		.203	17.76	24.78
	TNMC 43 NT 8 *	1/4	.189		.203	17.76	24.78
	TNMC 43 NT 10 *	1/4	.189		.203	17.76	24.78
 TNMC	TNMC 32 NV*	3/8	.127	8-36	.150	11.00	15.50
	TNMC 43 NV*	1/2	.189	5-24	.203	15.60	22.60
	TNMC 54 NV*	5/8	.252	4-20	.250	26.43	36.47
	TNMC 64 NV*	3/4	.250	4-20	.312	38.11	52.47
	TNMC 66 NV*	3/4	.375	3-12	.312	41.71	58.40
 TNMG	TNMG-221 MN*	1/4	1/8	1/64	.093	-	7.37
	TNMG-222 MN*	1/4	1/8	1/32	.093	-	7.37
	TNMG-331 MN*	3/8	3/16	1/64	.150	7.94	11.82
	TNMG-332 MN*	3/8	3/16	1/32	.150	7.94	11.82
	TNMG-333 MN*	3/8	3/16	3/64	.150	7.94	11.82
	TNMG-431 MN*	1/2	3/16	1/64	.203	12.13	17.19
	TNMG-432 MN*	1/2	3/16	1/32	.203	12.13	17.19
CHIPBREAK RN	TNMG-433 RN*	1/2	3/16	3/64	.203	12.13	17.19
CHIPBREAK MN	TNMG-542 MN*	5/8	1/4	1/32	.250	20.81	28.27
 TNMG	TNMG-543*	5/8	1/4	3/64	.250	20.81	28.27
	TNMG-544*	5/8	1/4	1/16	.250	20.81	28.27
 TNMS	TNMS-331 *	3/8	3/16	1/64	.150	8.58	12.52
	TNMS-332 *	3/8	3/16	1/32	.150	8.58	12.52
	TNMS-431 *	1/2	3/16	1/64	.203	12.75	17.84
	TNMS-432 *	1/2	3/16	1/32	.203	12.75	17.84
 TNMP	TNMP-332*	3/8	3/16	1/32	.150	8.54	12.35
	TNMP-432*	1/2	3/16	1/32	.203	10.23	15.84
	TNMP-543*	5/8	1/4	3/64	.250	16.31	24.74

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The originator of
quick change tooling

ALORIS CARBIDE INSERTS

SHAPE OR CHIPBREAKER DEPICTED	ORDER #	DIMENSIONS				GRADES	
		I.C.	THICKNESS	RADIUS	HOLE	GRADE A2/A6†	GRADE 767†
	TPG-221*	1/4	1/8	1/64		6.16	9.62
	TPG-222*	1/4	1/8	1/32		6.16	9.62
	TPG-223*	1/4	1/8	3/64		6.16	9.62
	TPG-224*	1/4	1/8	1/16		6.16	9.62
	TPG-321*	3/8	1/8	1/64		6.30	10.30
	TPG-322*	3/8	1/8	1/32		6.30	10.30
	TPG-323*	3/8	1/8	3/64		6.30	9.62
	TPG-324*	3/8	1/8	1/16		6.30	9.62
	TPG-431*	1/2	3/16	1/32		9.15	15.70
	TPG-432*	1/2	3/16	1/32		9.15	15.70
	TPG-433*	1/2	3/16	3/64		9.15	15.70
	TPG-434*	1/2	3/16	1/16		9.15	15.70
	TPMA 32 NT 6*	3/8	.127		.150	16.77	21.70
	TPMA 32 NT 8*	3/8	.127		.150	16.77	21.70
	TPMA 32 NT 10*	3/8	.127		.150	16.77	21.70
	TPMA 32 NT 12*	3/8	.127		.150	16.77	21.70
	TPMA 43 NT 4*	1/4	.189		.203	22.66	29.70
	TPMA 43 NT 5*	1/4	.189		.203	22.66	29.70
	TPMA 43 NT 6*	1/4	.189		.203	22.66	29.70
	TPMA 43 NT 8*	1/4	.189		.203	22.66	29.70
TPMA 43 NT 10*	1/4	.189		.203	22.66	29.70	
	TPMA 32 NV*	3/8	.127	8-36	.150	14.44	18.88
	TPMA 43 NV*	1/2	.189	5-24	.203	20.26	27.17
	TPMC 32 NT 6*	3/8	.127		.150	16.77	21.70
	TPMC 32 NT 8*	3/8	.127		.150	16.77	21.70
	TPMC 32 NT 10*	3/8	.127		.150	16.77	21.70
	TPMC 32 NT 12*	3/8	.127		.150	16.77	21.70
	TPMC 43 NT 4*	1/4	.189		.203	22.66	29.70
	TPMC 43 NT 5*	1/4	.189		.203	22.66	29.70
	TPMC 43 NT 6*	1/4	.189		.203	22.66	29.70
	TPMC 43 NT 8*	1/4	.189		.203	22.66	29.70
TPMC 43 NT 10*	1/4	.189		.203	22.66	29.70	
	TPMC 32 NV*	3/8	.127	8-36	.150	14.50	18.90
	TPMC 43 NV*	1/2	.189	5-24	.203	20.25	27.25
	TPU-321*	3/8	1/8	1/64		2.74	6.73
	TPU-322*	3/8	1/8	1/32		2.74	6.73
	TPU-323*	3/8	1/8	3/64		2.74	6.73
	TPU-324*	3/8	1/8	1/16		2.74	6.73

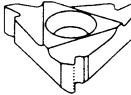
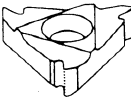
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ALORIS CARBIDE INSERTS

SHAPE OR CHIPBREAKER DEPICTED	ORDER #	DIMENSIONS				GRADES	
		I.C.	THICK- NESS	RADIUS	HOLE	GRADE A2/A6†	GRADE 767†
 WNMG	WNMG-331 MN*	3/8	3/16	1/64	.150	7.60	10.75
	WNMG-332 MN*	3/8	3/16	1/32	.150	7.60	10.75
	WNMG-333 MN*	3/8	3/16	3/64	.150	7.60	10.75
	WNMG-431 MN*	1/2	3/16	1/64	.203	9.34	12.96
	WNMG-432 MN*	1/2	3/16	1/32	.203	9.34	12.96
	WNMG-433 MN*	1/2	3/16	3/64	.203	9.34	12.96

†Quantities of 100 and over, call for price.

LAY DOWN THREADING INSERTS

SHAPE OR CHIPBREAKER DEPICTED	ORDER #	DIMENSIONS				GRADES →			GRADES	
		I.C.	THICK- NESS	RADIUS	HOLE	X	Y	TPI	A2/A6	767
 AIT-R/L60	1/4 AIT-R60*	1/4	.126	.0018	.128	.031	.035	16-48	31.50	37.25
	1/4 AIT-L60*	1/4	.126	.0018	.128	.031	.035	16-48	31.50	37.25
	3/8 AIT-R60*	3/8	.143	.002	.155	.047	.067	8-48	31.50	37.25
	3/8 AIT-L60*	3/8	.143	.002	.155	.047	.067	8-48	31.50	37.25
	1/2 AIT-R60*	1/2	.188	.008	.192	.067	.098	5-7	38.10	45.85
	1/2 AIT-L60*	1/2	.188	.008	.192	.067	.098	5-7	38.10	45.85
 ER/L60	16ER LAG 60-RH*	3/8	.143	.002	.155	.047	.067	8-48	31.50	37.25
	16ER LAG 60-LH*	3/8	.143	.002	.155	.047	.067	8-48	31.50	37.25
	22ER LN 60-RH*	1/2	.188	.0132	.192	.067	.098	5-7	38.10	45.85
	22ER LN 60-LH*	1/2	.188	.0132	.192	.067	.098	5-7	38.10	45.85

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