

ACHTECK

**NEW
PRODUCT!**

AC350P

New Turning CVD grade for steels

For heavy interrupted machining



Achteck is launching a new turning CVD grade-the AC350P which provides the exceptional machining performance at low cutting speed and interrupted cut on steels. The grade has very tough substrate combining Achteck's CVD coating enhanced chipping resistance and toughness. The new grade AC350P provides a better surface finish on work piece due to post surface treatment after coating.

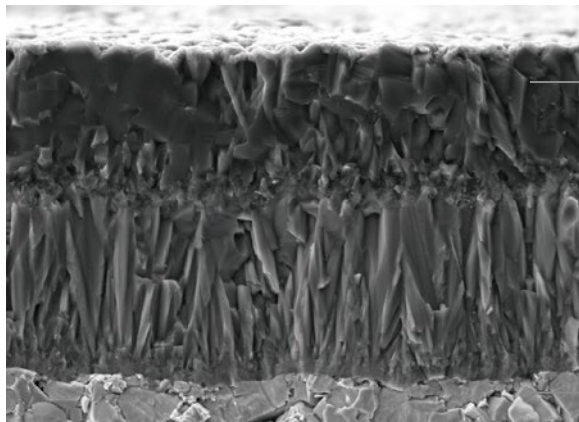
The new grade is defined a longer tool life at low cutting speed and heavy machining on steels

The AC350P grade can be used in continuous cut and interrupted cut on steels.

● AC350P Grade Features

Kind of coating: CVD

ISO range: P30-P45



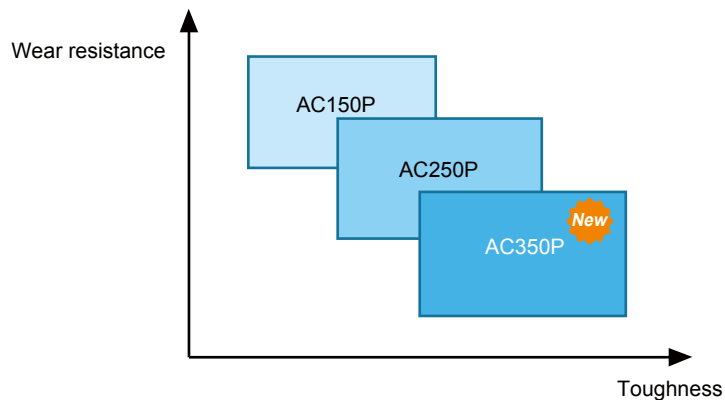
CVD coating

Very tough carbide substrate

<SEM micro structure>

- Very tough carbide substrate with on CVD coating
- Excellent toughness and chipping resistance.
- For a wide range medium to roughing application at low cutting speed on steels.
- Very good surface finish on work piece
- For heavy turning

Application range



Recommended cutting speed by materials

ISO	Material Classification	Tensile strength (N/mm ²)	Hardness (HB)	Cutting Speed(m/min)		
				Low feed rate	Medium feed rate	Max feed rate
P (P30-45)	Unalloyed steel	<600	<180	250	182	115
		<950	<280	160	117	75
	Alloy steel	700-950	200-280	148	109	70
		950-1200	280-355	135	100	65
		1200-1400	355-415	93	69	45

Remark) The recommended cutting speed always refer to general conditons. These cutting speed should be adjusted according to the practical machine rigidity, tools, work piece clamping and coolants.

Case stories

Component description: Container housing

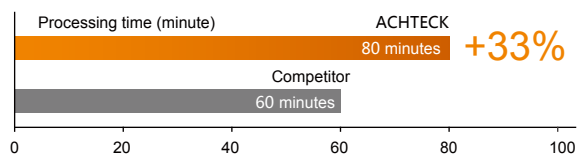
Material: Alloy steel

Insert: SNMM 250924S-PD9 AC350P

Competitor: SNMM 250924-TK CVD coated grade

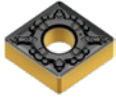
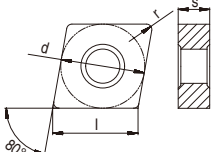
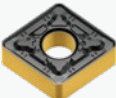
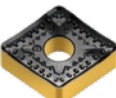
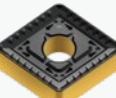
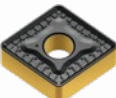
Cutting Parameters: $V_c=126\text{m/min}$, $f=1.0\text{mm/z}$

$a_p=8.0\text{mm}$, dry cutting

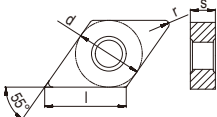
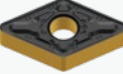
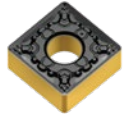
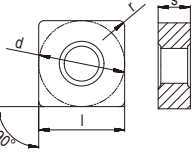
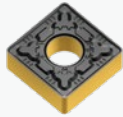
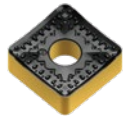
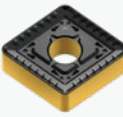
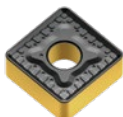


• Stock items

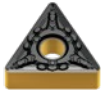
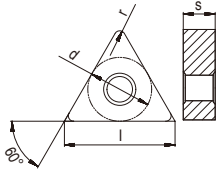
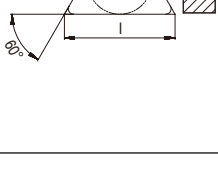
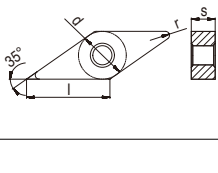
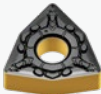
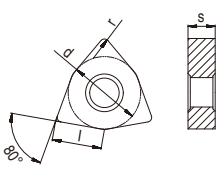
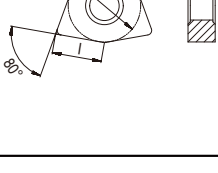
Negative insert

Insert	Item designation	Recommended cutting parameters		Dimension(mm)				Grade (CVD)	Geometry
		Feed (mm/rev)	ap (mm)	d	l	s	r	AC350P	
	CNMG 120404E-PD3	0.08-0.22	0.40-4.30	12.70	12.9	4.76	0.4	○	
	120408E-PD3	0.15-0.44	0.80-4.30	12.70	12.9	4.76	0.8	●	
	120412E-PD3	0.23-0.66	1.20-4.30	12.70	12.9	4.76	1.2	●	
	160608E-PD3	0.15-0.44	0.80-5.30	15.87	16.1	6.35	0.8	○	
	190608E-PD3	0.15-0.44	0.80-6.40	19.05	19.3	6.35	0.8	○	
	CNMG 120408E-PD5	0.20-0.60	1.20-6.40	12.70	12.9	4.76	0.8	●	
	120412E-PD5	0.30-0.90	1.80-6.40	12.70	12.9	4.76	1.2	●	
	160612E-PD5	0.30-0.90	1.80-8.10	15.87	16.1	6.35	1.2	○	
	160616E-PD5	0.40-1.20	2.40-8.10	15.87	16.1	6.35	1.6	●	
	190612E-PD5	0.30-0.90	1.80-9.70	19.05	19.3	6.35	1.2	○	
	190616E-PD5	0.40-1.20	2.40-9.70	19.05	19.3	6.35	1.6	●	
	CNMM 120408E-PD8	0.16-0.32	1.44-5.20	12.70	12.9	4.76	0.8	●	
	120412E-PD8	0.24-0.48	2.16-5.20	12.70	12.9	4.76	1.2	●	
	160612E-PD8	0.24-0.48	2.16-6.40	15.87	16.1	6.35	1.2	○	
	160616E-PD8	0.32-0.64	2.88-6.40	15.87	16.1	6.35	1.6	○	
	160624E-PD8	0.48-0.96	4.32-6.40	15.87	16.1	6.35	2.4	○	
	190612E-PD8	0.24-0.48	2.16-7.70	19.05	19.3	6.35	1.2	○	
	190616E-PD8	0.32-0.64	2.88-7.70	19.05	19.3	6.35	1.6	●	
	190624E-PD8	0.48-0.96	4.32-7.70	19.05	19.3	6.35	2.4	●	
	250724E-PD8	0.48-0.96	4.32-10.3	25.40	25.8	7.94	2.4	○	
	250924E-PD8	0.48-0.96	4.32-10.3	25.40	25.8	9.52	2.4	●	
	CNMM 190612S-PC9	0.26-0.60	2.40-9.70	19.05	19.3	6.35	1.2	○	
	190616S-PC9	0.35-0.80	3.20-9.70	19.05	19.3	6.35	1.6	○	
	190624S-PC9	0.53-1.20	4.80-9.70	19.05	19.3	6.35	2.4	●	
	250724S-PC9	0.53-1.20	4.80-12.9	25.40	25.8	7.94	2.4	●	
	250924S-PC9	0.53-1.20	4.80-12.9	25.40	25.8	9.52	2.4	○	
	CNMM 190612S-PD9	0.30-0.72	2.64-11.6	19.05	19.3	6.35	1.2	○	
	190616S-PD9	0.40-0.96	3.52-11.6	19.05	19.3	6.35	1.6	○	
	190624S-PD9	0.60-1.44	5.28-11.6	19.05	19.3	6.35	2.4	●	
	250724S-PD9	0.60-1.44	5.28-15.5	25.40	25.8	7.94	2.4	○	
	250924S-PD9	0.60-1.44	5.28-15.5	25.40	25.8	9.52	2.4	●	

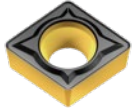
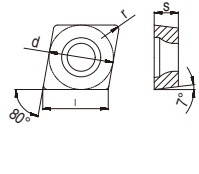
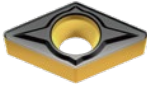
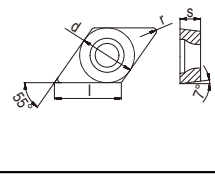
Remark: ● represent for standard stock
○ represent for Make-To-Order

Insert	Item designation	Recommended cutting parameters		Dimension(mm)				Grade (CVD)	Geometry
		Feed (mm/rev)	ap (mm)	d	l	s	r	AC350P	
	DNMG 150408E-PD3	0.15-0.44	0.8-3.9	12.7	15.5	4.76	0.8	●	
	150412E-PD3	0.23-0.66	1.2-3.9	12.7	15.5	4.76	1.2	●	
	150608E-PD3	0.15-0.44	0.8-3.9	12.7	15.5	6.35	0.8	○	
	150612E-PD3	0.23-0.66	1.2-3.9	12.7	15.5	6.35	1.2	○	
	DNMG 150408E-PD5	0.20-0.60	1.2-5.4	12.7	15.5	4.76	0.8	●	
	150412E-PD5	0.30-0.90	1.8-5.4	12.7	15.5	4.76	1.2	●	
	150416E-PD5	0.40-1.20	2.4-5.4	12.7	15.5	4.76	1.6	●	
	150608E-PD5	0.20-0.60	1.2-5.4	12.7	15.5	6.35	0.8	●	
	150612E-PD5	0.30-0.90	1.8-5.4	12.7	15.5	6.35	1.2	○	
	150616E-PD5	0.40-1.20	2.4-5.4	12.7	15.5	6.35	1.6	○	
	SNMG 120404E-PD3	0.08-0.22	0.4-4.2	12.7	12.7	4.76	0.4	○	
	120408E-PD3	0.15-0.44	0.8-4.2	12.7	12.7	4.76	0.8	●	
	120412E-PD3	0.23-0.66	1.2-4.2	12.7	12.7	4.76	1.2	●	
	190608E-PD3	0.15-0.44	0.8-6.3	19.05	19.05	6.35	0.8	○	
	SNMG 150608E-PD5	0.20-0.60	1.2-7.9	15.87	15.87	6.35	0.8	●	
	150612E-PD5	0.30-0.90	1.8-7.9	15.87	15.87	6.35	1.2	●	
	150616E-PD5	0.40-1.20	2.4-7.9	15.87	15.87	6.35	1.6	○	
	190612E-PD5	0.30-0.90	1.8-9.5	19.05	19.05	6.35	1.2	○	
	190616E-PD5	0.40-1.20	2.4-9.5	19.05	19.05	6.35	1.6	○	
	SNMM 120408E-PD8	0.16-0.32	1.44-5.1	12.7	12.7	4.76	0.8	●	
	120412E-PD8	0.24-0.48	2.16-5.1	12.7	12.7	4.76	1.2	○	
	150612E-PD8	0.24-0.48	2.16-6.40	15.87	15.87	6.35	1.2	○	
	190616E-PD8	0.32-0.64	2.88-7.60	19.05	19.05	6.35	1.6	●	
	190624E-PD8	0.48-0.96	4.32-7.60	19.05	19.05	6.35	2.4	●	
	250724E-PD8	0.48-0.96	4.32-10.2	25.4	25.4	7.94	2.4	○	
	250924E-PD8	0.48-0.96	4.32-10.2	25.4	25.4	9.525	2.4	○	
	SNMM 190612S-PC9	0.26-0.60	2.4-9.5	19.05	19.05	6.35	1.2	○	
	190616S-PC9	0.35-0.80	3.20-9.50	19.05	19.05	6.35	1.6	○	
	190624S-PC9	0.53-1.20	4.80-9.50	19.05	19.05	6.35	2.4	●	
	250724S-PC9	0.53-1.20	4.80-12.7	25.4	25.4	7.94	2.4	○	
	250924S-PC9	0.53-1.20	4.80-12.7	25.4	25.4	9.525	2.4	○	
	SNMM 190612S-PD9	0.30-0.72	2.64-11.4	19.05	19.05	6.35	1.2	○	
	190616S-PD9	0.40-0.96	3.52-11.4	19.05	19.05	6.35	1.6	○	
	190624S-PD9	0.60-1.44	5.28-11.4	19.05	19.05	6.35	2.4	●	
	250724S-PD9	0.60-1.44	5.28-15.2	25.4	25.4	7.94	2.4	○	
	250924S-PD9	0.60-1.44	5.28-15.2	25.4	25.4	9.525	2.4	●	

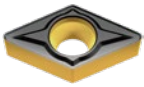
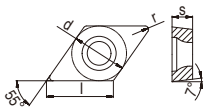
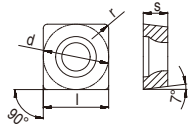
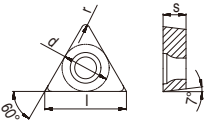
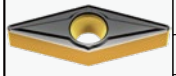
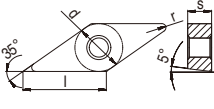
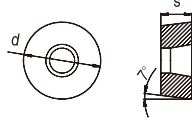
Remark: ● represent for standard stock
○ represent for Make-To-Order

Insert	Item designation	Recommended cutting parameters		Dimension(mm)				Grade (CVD)	Geometry
		Feed (mm/rev)	ap (mm)	d	l	s	r	AC350P	
	TNMG 160404E-PD3	0.08-0.22	0.4-4.1	9.52	16.5	4.76	0.4	○	
	160408E-PD3	0.15-0.44	0.8-4.1	9.52	16.5	4.76	0.8	●	
	160412E-PD3	0.23-0.66	1.2-4.1	9.52	16.5	4.76	1.2	○	
	TNMG 160408E-PD5	0.20-0.60	1.2-5.8	9.52	16.5	4.76	0.8	●	
	160412E-PD5	0.30-0.90	1.8-5.8	9.52	16.5	4.76	1.2	●	
	220408E-PD5	0.20-0.60	1.2-7.7	12.7	22	4.76	0.8	●	
	220412E-PD5	0.30-0.90	1.8-7.7	12.7	22	4.76	1.2	●	
	220416E-PD5	0.40-1.20	2.4-7.7	12.7	22	4.76	1.6	●	
	VNMG 160404E-PD3	0.08-0.22	0.4-3.3	9.52	16.5	4.76	0.4	○	
	160408E-PD3	0.15-0.44	0.8-3.3	9.52	16.5	4.76	0.8	○	
	160412E-PD3	0.23-0.66	1.2-3.3	9.52	16.5	4.76	1.2	○	
	WNMG 080404E-PD3	0.08-0.22	0.4-2.9	12.7	8.7	4.76	0.4	○	
	080408E-PD3	0.15-0.44	0.8-2.9	12.7	8.7	4.76	0.8	●	
	080412E-PD3	0.23-0.66	1.2-2.9	12.7	8.7	4.76	1.2	●	
	WNMG 080408E-PD5	0.20-0.60	1.2-4.3	12.7	8.7	4.76	0.8	●	
	080412E-PD5	0.30-0.90	1.8-4.3	12.7	8.7	4.76	1.2	●	

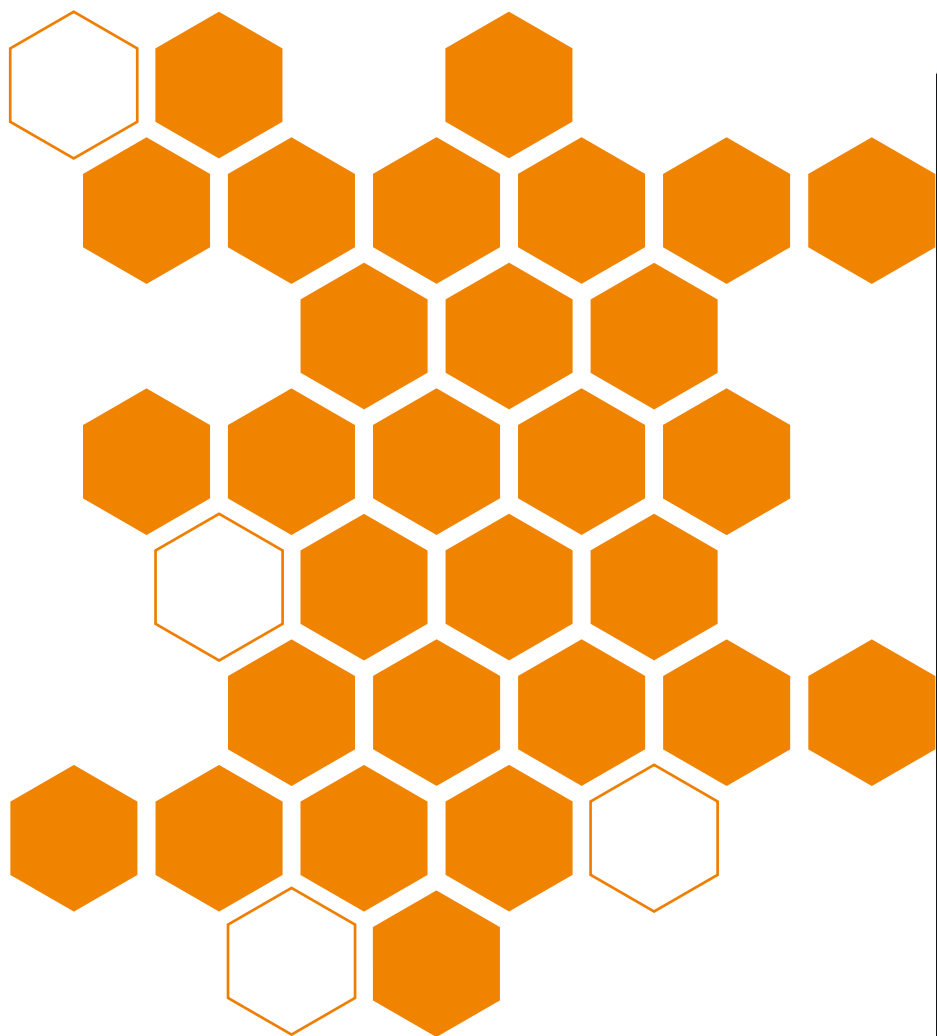
Positive inserts

Insert	Item designation	Recommended cutting parameters		Dimension(mm)				Grade (CVD)	Geometry
		Feed (mm/rev)	ap (mm)	d	l	s	r	AC350P	
	CCMT 060204E-KC2	0.06-0.18	0.4-2.1	6.35	6.45	2.38	0.4	○	
	060208E-KC2	0.12-0.36	0.8-2.1	6.35	6.45	2.38	0.8	●	
	09T304E-KC2	0.06-0.18	0.4-3.2	9.52	9.67	3.97	0.4	○	
	09T308E-KC2	0.12-0.36	0.8-3.2	9.52	9.67	3.97	0.8	●	
	120404E-KC2	0.06-0.18	0.4-4.3	12.7	12.9	4.76	0.4	○	
	120408E-KC2	0.12-0.36	0.8-4.3	12.7	12.9	4.76	0.8	●	
	120412E-KC2	0.18-0.54	1.2-4.3	12.7	12.9	4.76	1.2	○	
	DCMT 070204E-KC2	0.06-0.18	0.4-2.3	6.35	7.75	2.38	0.4	○	
	070208E-KC2	0.12-0.36	0.8-2.3	6.35	7.75	2.38	0.8	●	
	11T304E-KC2	0.06-0.18	0.4-3.5	9.52	11.63	3.97	0.4	○	
	11T308E-KC2	0.12-0.36	0.8-3.5	9.52	11.63	3.97	0.8	●	
	11T312E-KC2	0.18-0.54	1.2-3.5	9.52	11.63	3.97	1.2	○	

Remark: ● represent for standard stock
○ represent for Make-To-Order

Insert	Item designation	Recommended cutting parameters		Dimension(mm)				Grade (CVD)	Geometry
		Feed (mm/rev)	ap (mm)	d	l	s	r	AC350P	
	DCMT 070204E-KC2	0.06-0.18	0.4-2.3	6.35	7.75	2.38	0.4	○	
	070208E-KC2	0.12-0.36	0.8-2.3	6.35	7.75	2.38	0.8	○	
	11T304E-KC2	0.06-0.18	0.4-3.5	9.52	11.63	3.97	0.4	○	
	11T308E-KC2	0.12-0.36	0.8-3.5	9.52	11.63	3.97	0.8	●	
	11T312E-KC2	0.18-0.54	1.2-3.5	9.52	11.63	3.97	1.2	○	
	SCMT 09T304E-KC2	0.06-0.18	0.4-3.1	9.52	9.52	3.97	0.4	●	
	09T308E-KC2	0.12-0.36	0.8-3.1	9.52	9.52	3.97	0.8	●	
	120404E-KC2	0.06-0.18	0.4-4.2	12.7	12.7	4.76	0.4	○	
	120408E-KC2	0.12-0.36	0.8-4.2	12.7	12.7	4.76	0.8	●	
	120412E-KC2	0.18-0.54	1.2-4.2	12.7	12.7	4.76	1.2	○	
	TCMT 090204E-KC2	0.06-0.18	0.4-2.9	5.56	9	2.38	0.4	○	
	090208E-KC2	0.12-0.36	0.8-2.9	5.56	9	2.38	0.8	○	
	110204E-KC2	0.06-0.18	0.4-3.3	6.35	11	2.38	0.4	○	
	110208E-KC2	0.12-0.36	0.8-3.3	6.35	11	2.38	0.8	○	
	16T304E-KC2	0.06-0.18	0.4-4.9	9.52	16.5	3.97	0.4	○	
	16T308E-KC2	0.12-0.36	0.8-4.9	9.52	16.5	3.97	0.8	●	
	16T312E-KC2	0.18-0.54	1.2-4.9	9.52	16.5	3.97	1.2	○	
	VBMT 160404E-KC2	0.06-0.18	0.4-3.3	9.52	16.61	4.76	0.4	○	
	160408E-KC2	0.12-0.36	0.8-3.3	9.52	16.61	4.76	0.8	●	
	160412E-KC2	0.18-0.54	1.2-3.3	9.52	16.61	4.76	1.2	○	
	RCMX 100300S	0.25-0.50	1.5-4.0	10	-	3.18	5	○	
	120400S	0.30-0.60	2.5-5.0	12	-	4.76	6	●	
	160600S	0.40-0.75	3.0-7.0	16	-	6.35	8	○	
	200600S	0.48-0.90	3.5-9.0	20	-	6.35	10	○	
	250700S	0.55-1.20	4.0-12.0	25	-	7.94	12.5	●	
	320900S	0.65-1.50	5.0-15.0	32	-	9.52	16	○	

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