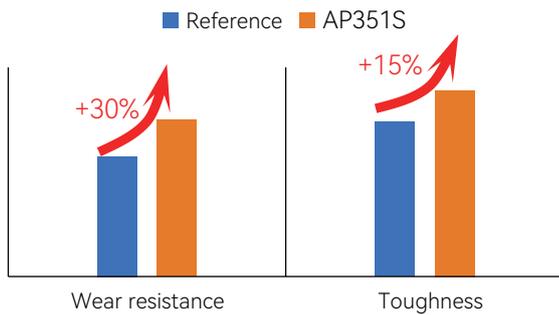
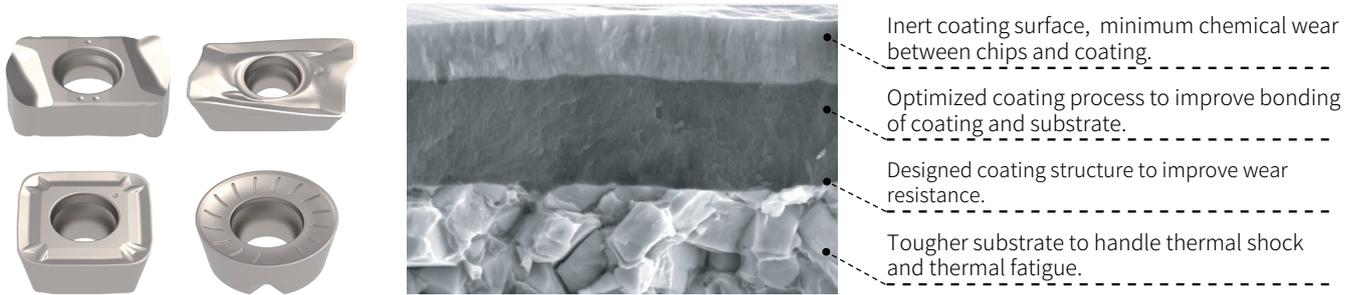


New PVD Milling Grade for Ti-Alloy ——AP351S



AP351S Characteristics



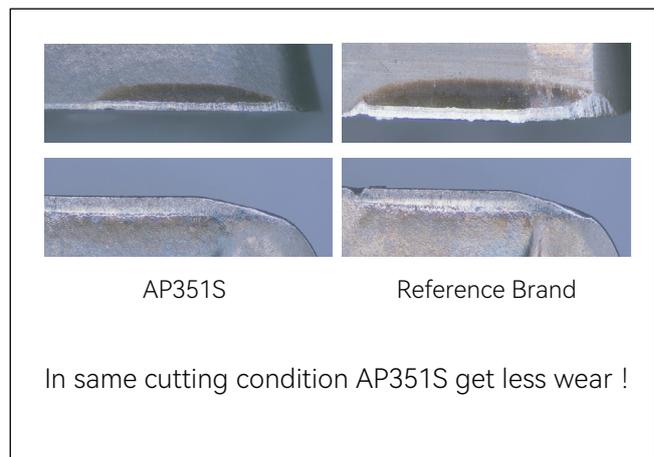
- New substrate processing technology, significantly improve substrate wear resistance and toughness.
- AlTiN and inert alloy compound coating, shows excellent wear resistance and high-temperature oxidation resistance.
- Longer insert life in Ti-alloy machining, less edge build up and chemical wear.
- AP351S is the first choice of Ti-alloy, but also has good performance on super alloys and stainless steels.

Application

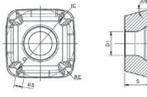
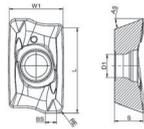
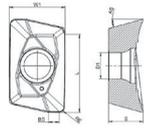
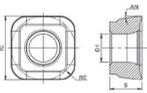
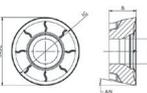
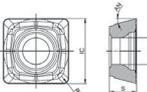
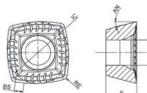
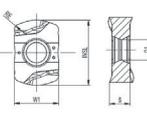
Material	S				M			
Application	Finishing ← → Roughing				Finishing ← → Roughing			
ISO	S10	S20	S30	S40	M10	M20	M30	M40
Range			S30-S40			M25-M35		
Vc	30-60 m/min				100-190 m/min			

Comparison of Wear Resistance

Component	Test Block
Material	TC21
Cutter	D50 Z06
Insert	XOMT 09T312ER-MS4 AP351S
Vc	79 m/min
ap	0.2 mm
ae	40 mm
fz	0.25 mm
Coolant	Emulsion



● **Product List**

Insert shape		Product code	Dimensions (mm)							AN	Stock
			INSL (L)	IC	S	W1	RE	D1	BS		
		XOMT 09T312ER-MS4	-	9.525	3.97	-	1.2	4.2	1.9	15°	●
		XOGT 09T312ER-MS4	-	9.525	3.97	-	1.2	4.2	1.9	15°	●
		XOMT 120420ER-MS4	-	12.7	4.82	-	2.0	4.4	1.5	15°	○
		XOGT 120420ER-MS4	-	12.7	4.82	-	2.0	4.4	1.5	15°	●
		ADMT 11T308R-MM4	10.9	-	3.59	6.9	0.8	2.85	1.4	20°	○
		AOMT 120408ER-MM4	11.5	-	5.07	8.15	0.8	3.9	1.5	15°	○
		AOMT 120412ER-MM4	11.5	-	5.07	8.15	1.2	3.9	1.2	15°	○
		AOMT 120420ER-MM4	11.2	-	5.07	8.15	2.0	3.9	1.0	15°	○
		AOMT 120431ER-MM4	10.9	-	5.07	8.15	3.1	3.9	0.6	15°	●
		SCGT 120630-MR4	-	12.7	6.35	-	3.0	5.6	-	7°	○
		ROMT 10T3M4E-MR6	10	10	3.97	-	-	3.4	-	11°	○
		ROHT 1204M4E-MM3	12	12	4.76	-	-	4.4	-	11°	●
		ROMT 1204M4E-MM4	12	12	4.76	-	-	4.4	-	11°	●
		ROMT 1204M6E-MR6	12	12	4.76	-	-	4.4	-	11°	●
		ROMT 1605M6E-MR6	16	16	5.56	-	-	5.5	-	11°	○
		SDMT 09T320N-MM4	-	9.525	3.97	-	2.0	3.9	-	15°	○
		SDMT 120425N-MM4	-	12.7	4.76	-	2.5	4.4	-	15°	●
		XDLT 090408ER-MM3	-	9.525	4.76	-	0.8	3.9	1.3	15°	●
		XDLT 120512ER-MM3	-	12.7	5.56	-	1.2	4.4	2.2	15°	○
		LNMX 060410ER-MM3	10	-	3.6	6.35	1.0	3.0	-	-	○
		LNMX 060410ER-MM4N	10	-	3.6	6.35	1.0	3.0	-	-	○

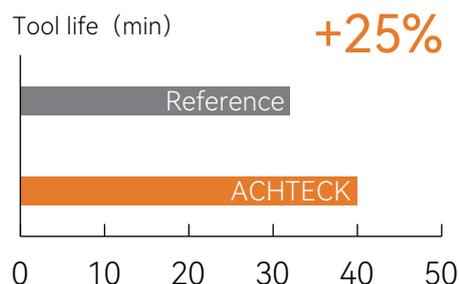
● - Stock available ○ - Made to order

• Application case 1

Componen: Landing Gear
 Material: TC18 ($\alpha+\beta$ Ti-alloy)
 Cutter: D63 Z06
 Insert: XOGT 120420ER-MS4
 Grade: AP351S
 Operation: Roughing



Cutting data	Reference	ACHTECK
Vc [m/min]	29.7	29.7
fz [mm/t]	0.7	0.7
ap [mm]	1.5	1.5
Coolant	Emulsion	Emulsion
Tool life [min]	32	40



• Application case 2

Componen: Casing
 Material: PH15-5
 Cutter: D40 Z05
 Insert: XOMT 09T312ER-MS4
 Grade: AP351S
 Operation: Roughing



Cutting data	Reference	ACHTECK
Vc [m/min]	62.8	62.8
fz [mm/t]	0.56	0.56
ap [mm]	0.4	0.4
Coolant	Emulsion	Emulsion
Tool life [min]	40	48

