



# Applications



SurfTech Coating	Traditional Name	Color	Thickness (µm)	Maximum Operating Temp (°C)	Microhardness (HV 10g)	Friction Coefficient	Features	Industries
TITAN	TiN		1~7	600	2200~2500	0.55	<ul style="list-style-type: none"> <li>• General purpose coating</li> <li>• Decorative purpose</li> <li>• Good for machining carbon steel (less than 30 HRC)</li> </ul>	Cutting Tool Decorative Coating Forming
TITAN-A5	TiAlN		1~4	800	2800~3200	0.6	<ul style="list-style-type: none"> <li>• Great wet-machining performance</li> <li>• Good for machining tool steel (less than 45 HRC)</li> </ul>	Cuting Tool Forming
TITAN-A7R	AlTiCrN		1~4	900	3200~3600	0.65	<ul style="list-style-type: none"> <li>• Higher operational temperature range (T&gt;800C)</li> <li>• Great wet - dry machining performance</li> <li>• Good for machining steel (in the range of 45~50 HRC)</li> </ul>	Cutting Tool Punch / Forming
TITAN-A7	AlTiN		1~4	800	3200~3600	0.7	<ul style="list-style-type: none"> <li>• Higher operational temperature range (T&gt;800C)</li> <li>• Great dry machining performance (minimum use of lubricants)</li> <li>• Good for machining steel (in the range of 50~55 HRC)</li> </ul>	Cuting Tool Punch / Forming
TITAN-AC	TiAlCN		1~4	400	2500	0.3	<ul style="list-style-type: none"> <li>• Excellent for machining Al-alloy 6061/7075</li> </ul>	Cutting Tool
TITAN-C	TiCN		1~4	400	2200~2500	0.25	<ul style="list-style-type: none"> <li>• Good for HHS drill</li> <li>• Lower friction than TiN</li> </ul>	Cutting Tool Hobbing Punching
TITAN-R	TiCrN		1~4	700	2100	0.5	<ul style="list-style-type: none"> <li>• Multilayer CrN/TiN coating</li> <li>• Excellent in molding and high precision parts protection</li> <li>• Anti-rust/corrosion</li> </ul>	Molding
ORION-T	TiSiN		1~4	1100	3300~4600	0.45	<ul style="list-style-type: none"> <li>• High operational temperature</li> <li>• High hardness</li> <li>• Excellent for Stainless Steel</li> <li>• Excellent in high speed dry cutting</li> <li>• High abrasive wear resistance</li> </ul>	Cutting Tool Hobbing
ORION-AR	AlCrSiN		1~4	950	4500	0.7	<ul style="list-style-type: none"> <li>• Excellent in high speed dry cutting</li> <li>• Good for machining harder steel (55 HRC up)</li> <li>• Good for machining Ti-alloy</li> </ul>	Cutting Tool Forming Molding
SCUTUM-Z	ZrN		1~4	550	2000	0.4	<ul style="list-style-type: none"> <li>• Great for machining Al-alloy</li> <li>• Anti-corrosion</li> </ul>	Cutting Tool Aerospace
SCUTUM-R	CrN		1~7	700	1800	0.3	<ul style="list-style-type: none"> <li>• Optimum release, anti-adhesion</li> <li>• Anti-corrosion</li> <li>• Outstanding chemical resistance and toughness</li> </ul>	Molding / Forming Semiconductor Medical
SCUTUM-C	DLC		1~4	400	1800	0.15	<ul style="list-style-type: none"> <li>• Anti-adhesive diamond-like carbon</li> <li>• Extremely low friction</li> <li>• Good for machining light metal</li> <li>• PVD+PECVD hybrid process (US Patent)</li> </ul>	Cutting Tool Automobile (piston ring) Biomedical
Pure metal	Accordingly	Accordingly	1~200	Accordingly	Accordingly	Accordingly	<ul style="list-style-type: none"> <li>• High thickness coating available</li> <li>• Decorative coating</li> </ul>	Multiple Functions Decorative

## Specifications

### Model

	STAR 2	STAR 4	STAR 6
Load diameter	300 mm / 11.81"	600 mm / 23.62"	600 mm / 23.62"
Load height	300 mm / 11.81"	550 mm / 21.65"	750 mm / 29.52"
Max Load Weight	200 kg / 400 lb	500 kg / 1,100 lb	600 kg / 1,322 lb
Cathodic Arc Sources	2 sets	4 sets	6 sets
Cycle Time	2-3 hours	3-4 hours	4-5 hours
Foot Print	1,560 x 1,590 mm (61.41" x 62.59")	2,852 x 1,860 mm (112.2" x 73.23")	2,852 x 1,860 mm (112.2" x 73.23")
Applications	-Small batch production -Fast cycle coatings	High volume tool coatings	High volume large molds

Williams and White reserves the right to alter or amend specifications without prior notice



Sales@williamsandwhite.com  
www.williamsandwhiteequipment.com

**CALL US NOW**  
**+1 604-293-2268**  
**TOLL FREE: 1-888-293-2268**