# **Beifeler**GEAR CUTTING TOOLS



voestalpine eifeler Coatings has developed a series of Physical Vapor Deposition (PVD) coatings for the cutting tool industry. Cutting tools using high and ultra-high speeds generate much heat which can weaken the tool and reduce tool life. Common failure modes that a coating can protect against are premature edge wear, thermal failure and edge build-up. This is mainly achieved through reduced friction, abrasion protection and reduction of edge buildup.

When it comes to toothing, the demands placed on tools are immense. Machining workpieces in dry toothing requires high temperatures and cutting speeds. Even for wet machining, the requirements remain very high. With **SUBLIME®**, we now offer you a tool coating that yields a long service life and distance even with the special conditions for toothing.



PVD Coating	SUBLIME®	TiN	EXXTRAL®-plus	CROSAL®-plus
Coating Material	AlCrN and AlTiN	TiN	AlTiN multilayer	AlCrN-based
Hardness (HV)	3.300 ± 300	2.300 ± 300	3.300 ± 300	3.200 ± 300
Max. Application Temperature (°C)	800	500	800	1.100
Friction Coeff. Against Steel	0.4	0.6	0.7	0.45
Coating Thicknesses (µm)	2-4	1-4	2-5	2-5
Color	gray	gold	anthracite	slate-gray
Applications	» stick blades, hobs and shapers for long cutting paths and high cutting speeds	» hobs and shapers  » general purpose coating suitable for big hobs and shapers on wet machining conditions	» especially recommended for greater coating thicknesses, suitable for hobs and shapers on wet and dry applications  » improved resistance towards corrosion	» hobs: perfectly suited for the challenging areas of dry cutting

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