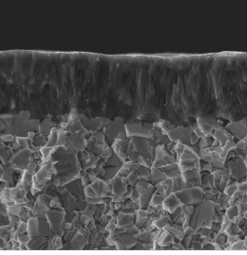
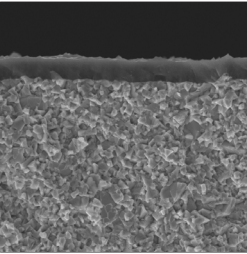
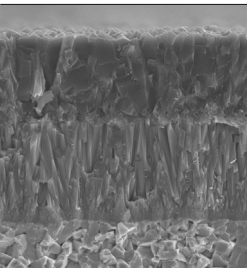
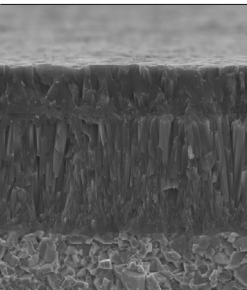
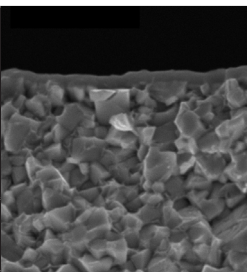
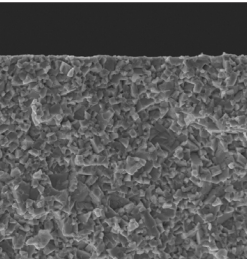


Grade / Application Area	Description	Microstructure
<p><b>GP1105</b></p> <p>Super-Finishing to Finishing</p> <p><b>P STEEL</b></p>	<p>"First Choice" for <b>Super-Finishing</b> Applications in Steel (ISO P Materials). Outstanding combination of deformation-resistance and insert edge strength. Gradient-sintered high-performance cemented carbide substrate with unsurpassed wear resistance. Double-Coated MT-CVD Grade with TiCN and Al<sub>2</sub>O<sub>3</sub> layers. Exceptional coating adhesion properties. Withstands elevated operating temperatures.</p>	
<p><b>GP1115</b></p> <p>Finishing and Semi-finishing</p> <p><b>P STEEL</b></p>	<p>"First Choice" for <b>Finishing</b> Applications in Steel (ISO P Materials). Triple-Coated MT-CVD Grade with Superfine TiCN, Thick Al<sub>2</sub>O<sub>3</sub>, and Ultra-Smooth TiN. Gradient-sintered high performance cemented carbide substrate with very high wear resistance. Performs extremely well in continuous cutting conditions and stable set-ups.</p>	
<p><b>GP1225</b></p> <p>Semi-finishing to Light Roughing</p> <p><b>P STEEL</b></p>	<p>"First Choice" for <b>Medium</b> Turning Applications in Steel (ISO P Materials). Triple-Coated MT-CVD Grade with Superthick TiCN, Optimized Al<sub>2</sub>O<sub>3</sub>, and Ultra-Smooth TiN. Gradient-sintered all-round performance cemented carbide substrate with excellent balance of wear resistance and toughness. Covers a wide application range, from semi-finishing to light roughing of Steels and continuous cutting to moderate interruptions. Also recommended for workpieces with scale.</p>	
<p><b>GP1135</b></p> <p>Medium Machining to Roughing</p> <p><b>P STEEL</b></p>	<p>"First Choice" for difficult <b>Roughing</b> Applications in Steel (ISO P Materials). Superior fracture toughness and wear resistance. MT-CVD Triple-Layer Coating with smooth surface and excellent fracture resistance. Gradient-sintered high performance cemented carbide substrate with exceptional toughness properties. Well suited for medium to heavy interrupted cuts and other unstable application conditions.</p>	
<p><b>GP3125</b></p> <p>Finishing to Light Roughing</p> <p><b>P M K</b></p>	<p>Universal Turning Grade. Primary application in Steel, with wide performance range in multiple materials. TiAlN Nano-Structure PVD Coated grade. Sub-Micron carbide substrate with outstanding combination of wear resistance and toughness behavior. Excellent Choice for All-Round grade that performs in an extremely wide variety of workpiece materials.</p>	
<p><b>GS3115</b></p> <p>Super-Finishing to Finishing</p> <p><b>M STAINLESS STEEL</b></p>	<p>"First Choice" Grade for <b>Finishing</b> Applications in Stainless Steel (ISO M Materials). Also suitable for finish turning iron-based, cobalt-based and nickel-based Heat Resistant Super Alloys. PVD Advanced TiAlN Coated Grade with superior heat-resistance and oxidation-resistance properties. Extremely hard deformation-resistant micro-grain cemented carbide substrate with exceptional wear resistance characteristics.</p>	

Grade / Application Area	Description	Microstructure
<p><b>GM1125</b></p> <p>Finishing to Medium Machining</p> <p><b>M STAINLESS STEEL</b></p>	<p>"First Choice" Grade for Stainless Steel (ISO M Materials). Double-Coated MT-CVD Grade with outstanding adhesion of Superthick TiCN and Ultra-Smooth TiN. Gradient-sintered tough cemented carbide substrate with excellent wear resistance - even at elevated cutting speeds. Optimized for Stainless Steel machining including light interruptions.</p>	
<p><b>GM3125</b></p> <p>Semi-finishing to Roughing</p> <p><b>M STAINLESS STEEL</b></p>	<p>TiAlN Nano-Structure PVD Coated grade on Superfine Sub-Micron carbide substrate - exceptional resistance to thermal and mechanical shock with very good wear resistance. Excellent Choice for Stainless Steel applications at moderate cutting speeds, continuous cutting to moderate interruptions.</p>	
<p><b>GK1115</b></p> <p>Finishing and Semi-finishing</p> <p><b>K CAST IRON</b></p>	<p>"First Choice" for <b>Finishing</b> Applications in Cast Iron (ISO K Materials). Double-Coated MT-CVD Grade, Thick TiCN and Superthick Al<sub>2</sub>O<sub>3</sub> on gradient-sintered high performance cemented carbide substrate. Unique "post-coating treatment" provides smoother cutting zone interface for extremely high wear resistance. Performs very well in continuous cutting conditions and stable set-ups.</p>	
<p><b>GK1125</b></p> <p>Semi-finishing to Roughing</p> <p><b>K CAST IRON</b></p>	<p>"First Choice" for <b>Medium</b> Turning Applications in Cast Iron (ISO K Materials). Double-Coated MT-CVD Grade, Superthick TiCN and Thick Al<sub>2</sub>O<sub>3</sub>. Gradient-sintered cemented carbide substrate with high wear resistance and superior toughness behavior. Covers a wide application range, from semi-finishing to roughing of Cast Iron - and continuous cutting to heavy interruptions. Performs well in poor machining conditions / on demanding castings.</p>	
<p><b>GNT7120</b></p> <p>Semi-finishing to Roughing</p> <p><b>N NON-FERROUS</b></p>	<p>PVD TiBC Coating paired with High Hardness and Wear Resistant Sub-Micron cemented carbide substrate developed specifically for Aluminum Alloys and other non-ferrous materials within the ISO N Material range. Extremely smooth top coating layer results in reduced surface friction and smooth chip flow. Also suitable for non-metallics.</p>	
<p><b>GN9125</b></p> <p>Semi-finishing to Roughing</p> <p><b>N NON-FERROUS</b></p>	<p>Uncoated Sub-Micron cemented carbide grade. High Hardness and Wear Resistance grade developed specifically for Aluminum Alloys and other non-ferrous materials within the ISO N Material range. Also suitable for non-metallics.</p>	

WORKPIECE MATERIAL	ANSI	ISO	Coating Type		
			CVD	PVD	
<b>P</b> Steel	C8	01	GP1105		↑ wear resistance ↑ toughness
	C7	10		GP1115	
	C6	20	GP1225	GP1135	
		30			
	40				
<b>M</b> Stainless Steel	-	01		GS3115	↑ wear resistance ↑ toughness
	-	10	GM1125	GM3125	
	-	20			
	-	30			
<b>K</b> Cast Iron	C4	01	GK1115		↑ wear resistance ↑ toughness
	C3	10	GK1125		
	C2	20			
	C1	30			
<b>S</b> Heat-Resistant Super Alloys	-	01		GS3115	↑ wear resistance ↑ toughness
	-	10			
	-	20			
	-	30			

WORKPIECE MATERIAL	ANSI	ISO	Coating Type				
			CVD	PVD	Uncoated		
<b>P</b> Steel	C8	01	GP1105			↑ wear resistance	
		10					
	C7	20	GP1115		GP3125	↑ toughness	
		30					
	C6	40	GP1225				
<b>M</b> Stainless Steel	-	01				↑ wear resistance	
	-	10	GM1125	GS3115	GP3125		
	-	20					↑ toughness
	-	30					
<b>K</b> Cast Iron	C4	01				↑ wear resistance	
	C3	10	GK1115		GP3125		
	C2	20					↑ toughness
	C1	30					
<b>N</b> Non-Ferrous Materials	C4	01				↑ wear resistance	
	C3	10					
	C2	20		GNT7120			↑ toughness
	C1	30			GN9125		
<b>S</b> Heat-Resistant Super Alloys	-	01				↑ wear resistance	
	-	10					
	-	20		GS3115			↑ toughness
	-	30					