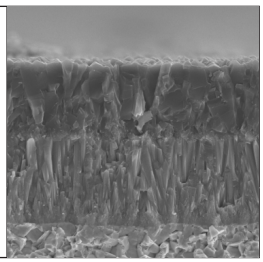
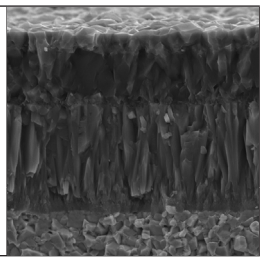
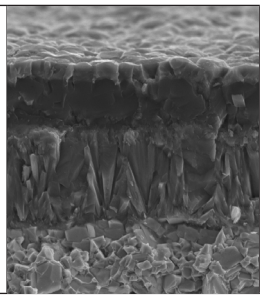
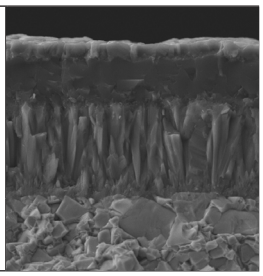
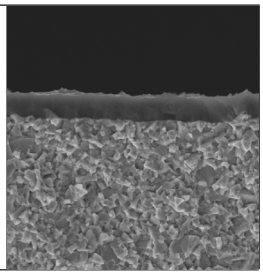
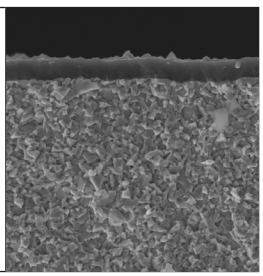
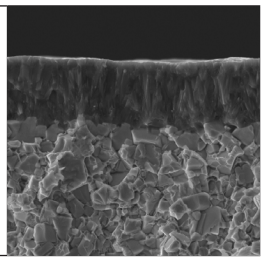
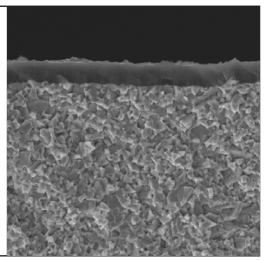
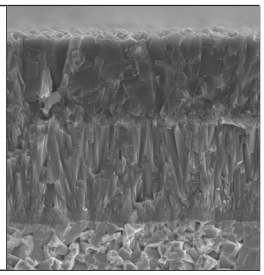
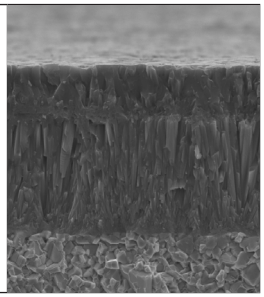
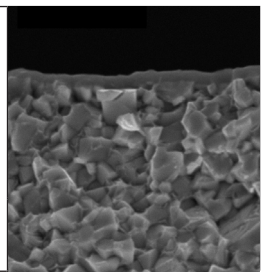
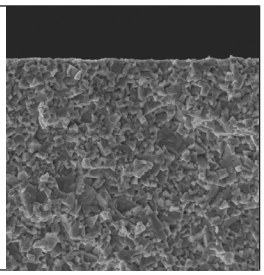
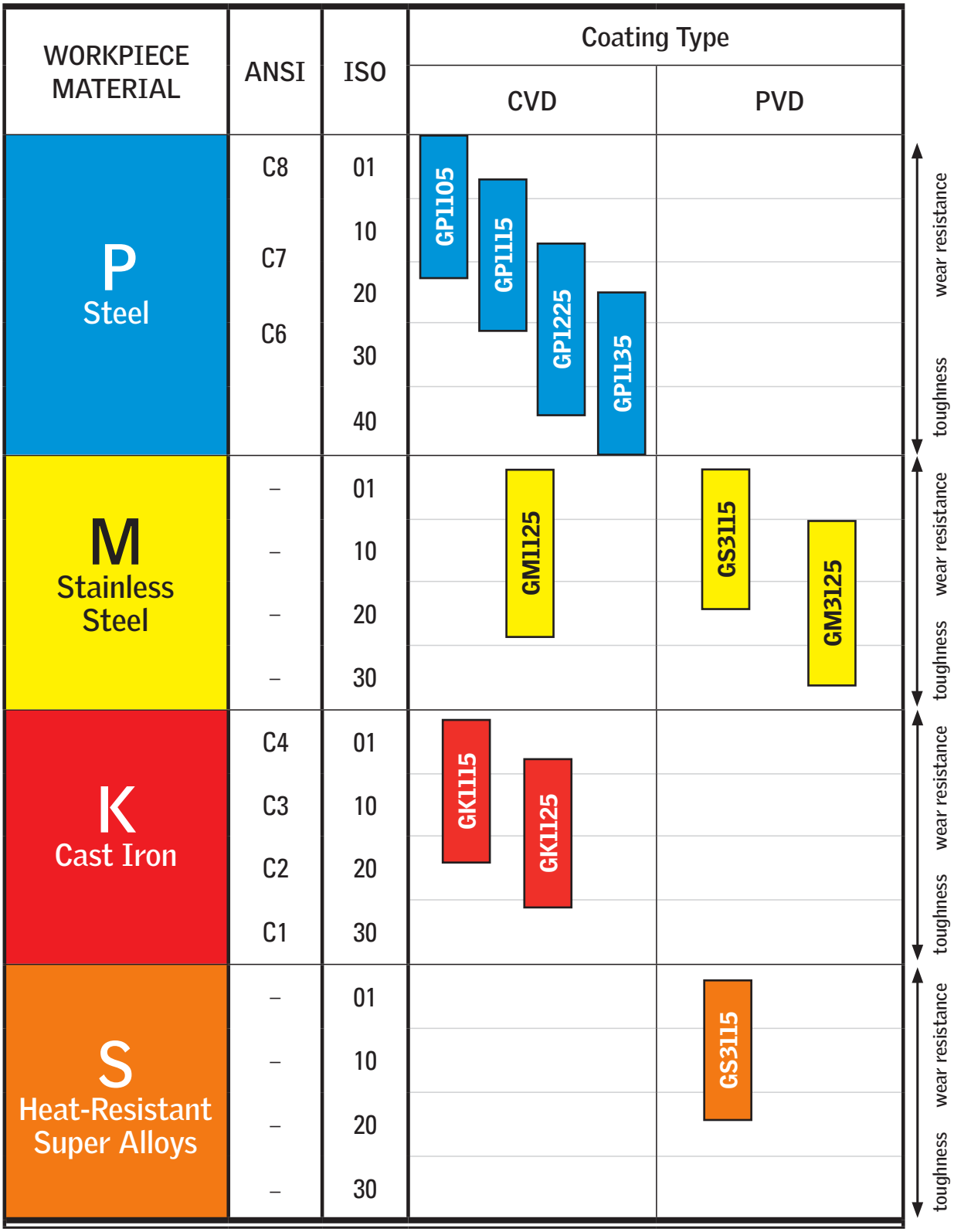
Grade / Application Area	Description	Microstructure
GP1105 **Super-Finishing to Finishing** **P STEEL**	"First Choice" for **Super-Finishing** Applications in Steel (ISO P Materials). Outstanding combination of deformation-resistance and insert edge strength. Gradient-sintered high-performance cemented carbide substrate with unsurpassed wear resistance. Double-Coated MT-CVD Grade with TiCN and Al_2O_3 layers. Exceptional coating adhesion properties. Withstands elevated operating temperatures.	
GP1115 **Finishing and Semi-finishing** **P STEEL**	*"First Choice"* for **Finishing** Applications in Steel (ISO P Materials). Triple-Coated MT-CVD Grade with Superfine TiCN, Thick Al_2O_3, 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.	
GP1225 **Semi-finishing to Light Roughing** **P STEEL**	*"First Choice"* for **Medium** Turning Applications in Steel (ISO P Materials). Triple-Coated MT-CVD Grade with Superthick TiCN, Optimized Al_2O_3, 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.	
GP1135 **Medium Machining to Roughing** **P STEEL**	*"First Choice"* for difficult **Roughing** 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.	
GP3125 **Finishing to Light Roughing** **P M K**	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.	
GS3115 **Super-Finishing to Finishing** **M STAINLESS STEEL**	*"First Choice"* Grade for **Finishing** 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.	

Grade / Application Area	Description	Microstructure
GM1125 **Finishing to Medium Machining** **M STAINLESS STEEL**	*"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.	
GM3125 **Semi-finishing to Roughing** **M STAINLESS STEEL**	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.	
GK1115 **Finishing and Semi-finishing** **K CAST IRON**	*"First Choice"* for **Finishing** Applications in Cast Iron (ISO K Materials). Double-Coated MT-CVD Grade, Thick TiCN and Superthick Al_2O_3 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.	
GK1125 **Semi-finishing to Roughing** **K CAST IRON**	*"First Choice"* for **Medium** Turning Applications in Cast Iron (ISO K Materials). Double-Coated MT-CVD Grade, Superthick TiCN and Thick Al_2O_3 . 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.	
GN3125 **Semi-finishing to Roughing** **N NON-FERROUS**	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.	
GN9125 **Semi-finishing to Roughing** **N NON-FERROUS**	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.	


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

WORKPIECE MATERIAL	ANSI	ISO	Coating Type: CVD	Coating Type: PVD	Coating Type: Uncoated
P Steel	C8	01	GP1105		
		10	GP1115		
	C7	20	GP1225	GP3125	
		30			
	C6	40			
M Stainless Steel	–	01	GM1125	GS3115	
	–	10		GP3125	
	–	20			
	–	30			
K Cast Iron	C4	01	GK1115	GP3125	
	C3	10			
	C2	20			
	C1	30			
N Non-Ferrous Materials	C4	01		GN3125	GN9125
	C3	10			
	C2	20			
	C1	30			
S Heat-Resistant Super Alloys	–	01		GS3115	
	–	10			
	–	20			
	–	30			

wear resistance ↕ toughness