



American National Carbide

Quality Carbide Products for the 21st Century

ANBlend™
Powder Products



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American National Carbide is a leading manufacturer of a broad range of carbide products for the metalworking, rock drilling, and wood processing industries. Our line of ANBlend™ tungsten carbide-cobalt powders can be used for the manufacture of these hardmetal products as well as other specialized applications. The complete line of standard powders is available in either unpeletted or ready-to-press form. Specially-formulated powders can be made to custom specifications.

Our ready-to-press blended grade powders are produced using a proprietary agglomeration process that produces consistently sized granules for optimum flowability. Powders obtained from this process offer ease of compaction, improved sinterability, and low porosity. Lot sizes of up to 1,800 kilos are available.



Our unpeletted blends of tungsten carbide-cobalt powders are popularly used as starting material for finished hardfacing powders. ANC has the capability of producing lot sizes of up to 7,500 kilos. Each lot of ANBlend™ powder comes with a certificate of analysis and is guaranteed to meet the required specifications.



As a vertically integrated company, ANC controls each of its manufacturing processes from powder to finished product. Using advanced quality assurance methods and continuous improvement throughout the facility guarantees that each product meets a customer's exact specifications.

Short production lead times, quality-focused manufacturing processes, and flexibility in new product design and tooling production make ANC a preferred choice for strategic partnerships.

Call our Customer Service and Support line today to see how ANC can improve your bottom line.



Grade	Sintered Microstructure (1500x)	Nominal Composition by Weight (%)		Physical Properties	
		WC			
AN2		WC	94.0	Hardness (Ra)	92.2
		Co	6.0	Theoretical Density (g/cc)	14.94
		TiC		Transverse Rupture Strength (psi)	340,000
		TaC/NbC			
AN6		WC	73.0	Hardness (Ra)	91.3
		Co	8.0	Theoretical Density (g/cc)	12.24
		TiC	8.0	Transverse Rupture Strength (psi)	310,000
		TaC/NbC	11.0		
AN11		WC	89.0	Hardness (Ra)	89.7
		Co	11.0	Theoretical Density (g/cc)	14.40
		TiC		Transverse Rupture Strength (psi)	375,000
		TaC/NbC			
AN16		WC	84.0	Hardness (Ra)	86.9
		Co	16.0	Theoretical Density (g/cc)	13.94
		TiC		Transverse Rupture Strength (psi)	420,000
		TaC/NbC			
AN20		WC	90.0	Hardness (Ra)	91.8
		Co	10.0	Theoretical Density (g/cc)	14.53
		TiC		Transverse Rupture Strength (psi)	400,000
		TaC/NbC			
AN22		WC	92.0	Hardness (Ra)	92.2
		Co	8.0	Theoretical Density (g/cc)	14.74
		TiC		Transverse Rupture Strength (psi)	340,000
		TaC/NbC			



Grade	Sintered Microstructure (1500x)	Nominal Composition by Weight (%)		Physical Properties	
		WC			
AN23		WC	94.0	Hardness (Ra)	93.2
		Co	6.0	Theoretical Density (g/cc)	14.95
		TiC		Transverse Rupture Strength (psi)	300,000
		TaC/NbC			
AN25		WC	94.0	Hardness (Ra)	93.8
		Co	6.0	Theoretical Density (g/cc)	14.95
		TiC		Transverse Rupture Strength (psi)	270,000
		TaC/NbC			
AN27		WC	84.0	Hardness (Ra)	90.3
		Co	16.0	Theoretical Density (g/cc)	13.86
		TiC		Transverse Rupture Strength (psi)	430,000
		TaC/NbC			
AN28		WC	90.0	Hardness (Ra)	92.0
		Co	6.0	Theoretical Density (g/cc)	14.72
		TiC		Transverse Rupture Strength (psi)	310,000
		TaC/NbC	4.0		
AN50		WC	77.0	Hardness (Ra)	90.2
		Co	11.0	Theoretical Density (g/cc)	13.01
		TiC	4.0	Transverse Rupture Strength (psi)	370,000
		TaC/NbC	8.0		
AN53		WC	81.0	Hardness (Ra)	90.8
		Co	8.0	Theoretical Density (g/cc)	12.92
		TiC	6.0	Transverse Rupture Strength (psi)	315,000
		TaC/NbC	5.0		



Grade	Sintered Microstructure (1500x)	Nominal Composition by Weight (%)		Physical Properties	
AN66		WC	76.0	Hardness (Ra)	91.8
		Co	8.0	Theoretical Density (g/cc)	12.71
		TiC	6.0	Transverse Rupture Strength (psi)	320,000
		TaC/NbC	10.0		
AN67		WC	75.0	Hardness (Ra)	92.5
		Co	6.0	Theoretical Density (g/cc)	12.48
		TiC	9.0	Transverse Rupture Strength (psi)	270,000
		TaC/NbC	10.0		
AN106		WC	94.0	Hardness (Ra)	90.2
		Co	6.0	Theoretical Density (g/cc)	14.95
		TiC		Transverse Rupture Strength (psi)	350,000
		TaC/NbC			
AN107		WC	94.0	Hardness (Ra)	90.5
		Co	6.0	Theoretical Density (g/cc)	14.95
		TiC		Transverse Rupture Strength (psi)	340,000
		TaC/NbC			
AN108		WC	92.0	Hardness (Ra)	90.0
		Co	8.0	Theoretical Density (g/cc)	14.74
		TiC		Transverse Rupture Strength (psi)	360,000
		TaC/NbC			
AN132		WC	87.0	Hardness (Ra)	88.2
		Co	13.0	Theoretical Density (g/cc)	14.23
		TiC		Transverse Rupture Strength (psi)	420,000
		TaC/NbC			



Grade	Sintered Microstructure (1500x)	Nominal Composition by Weight (%)		Physical Properties	
		WC			
AN133		WC	86.25	Hardness (Ra)	88.5
		Co	13.00	Theoretical Density (g/cc)	14.19
		TiC		Transverse Rupture Strength (psi)	415,000
		TaC/NbC	0.75		
AN667		WC	82.0	Hardness (Ra)	92.0
		Co	6.0	Theoretical Density (g/cc)	13.69
		TiC	4.0	Transverse Rupture Strength (psi)	270,000
		TaC/NbC	8.0		
AN1006		WC	94.0	Hardness (Ra)	90.9
		Co	6.0	Theoretical Density (g/cc)	14.95
		TiC		Transverse Rupture Strength (psi)	350,000
		TaC/NbC			
AN1010		WC	90.0	Hardness (Ra)	88.3
		Co	10.0	Theoretical Density (g/cc)	14.53
		TiC		Transverse Rupture Strength (psi)	410,000
		TaC/NbC			
AN1011		WC	90.0	Hardness (Ra)	87.8
		Co	10.0	Theoretical Density (g/cc)	14.53
		TiC		Transverse Rupture Strength (psi)	420,000
		TaC/NbC			
AN1012		WC	88.0	Hardness (Ra)	87.4
		Co	12.0	Theoretical Density (g/cc)	14.33
		TiC		Transverse Rupture Strength (psi)	420,000
		TaC/NbC			



Grade	Sintered Microstructure (1500x)	Nominal Composition by Weight (%)		Physical Properties	
		WC			
AN1013		WC	88.0	Hardness (Ra)	87.0
		Co	12.0	Theoretical Density (g/cc)	14.33
		TiC		Transverse Rupture Strength (psi)	430,000
		TaC/NbC			
109		WC	91.0	Hardness (Ra)	92.0
		Co	9.0	Theoretical Density (g/cc)	14.63
		TiC		Transverse Rupture Strength (psi)	355,000
		TaC/NbC			
209		WC	91.0	Hardness (Ra)	91.0
		Co	9.0	Theoretical Density (g/cc)	14.63
		TiC		Transverse Rupture Strength (psi)	360,000
		TaC/NbC			
310		WC	90.0	Hardness (Ra)	88.5
		Co	10.0	Theoretical Density (g/cc)	14.53
		TiC		Transverse Rupture Strength (psi)	410,000
		TaC/NbC			
311		WC	88.5	Hardness (Ra)	88.0
		Co	11.5	Theoretical Density (g/cc)	14.38
		TiC		Transverse Rupture Strength (psi)	420,000
		TaC/NbC			
508		WC	82.5	Hardness (Ra)	91.0
		Co	8.0	Theoretical Density (g/cc)	13.27
		TiC	4.5	Transverse Rupture Strength (psi)	320,000
		TaC/NbC	5.0		