

# PAC

Powder Alloy Corporation

## THERMAL SPRAY POWDERS COMPARISON GUIDE

### OEM Approvals CFM International



OEM SPECIFICATION	PAC DESIGNATION
CP5020	ARGENT WIRE
CP5023	A13 WIRE
CP6003	658C
CP6006	908C
CP6007	906
CP6008	127
CP6009	701B
CP6010	905-3
CP6011	16FC
CP6017	131
CP6023	9620AM
CP6024	2008P
CP6025	718B
CP6027	658F
CP6032	718F



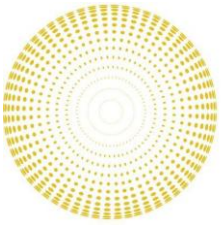
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THERMAL SPRAY POWDERS  
COMPARISON GUIDE

Honeywell

**Honeywell**

OEM SPECIFICATION	PAC DESIGNATION
EMS 52432 CL.I	911
EMS 52432 CL.II	130
EMS 52432 CL.V	1106
EMS 52432 CL.VI	705
EMS 52432 CL.VII	19NS
EMS 52432 CL.IX	127
EMS 52432 CL.XI	131
EMS 52432 CL.XII	801
EMS 52432 CL.XIII	912
EMS 52432 CL.XIV	902
EMS 52432 CL.XV	T800
EMS 52432 CL.XVI	T400
EMS 52432 CL.XVII	908C
EMS 52432 CL.XXIX	920
EMS 52432 CL.XX	906
EMS 52432 CL.XXI & EMS 57737	9640AM
EMS 52432 CL.XXII	2020
EMS 52432 CL.XXIII	90VF
EMS 52432 CL.XXIV	200S
EMS 52432 CL.XXV	701NS
EMS 52432 CL.XXVI	810S
EMS 52432 CL.XXVIII	4410
EMS 52432 CL.XXIX	922
EMS 52432 CL.XXX	2008P
EMS 52432 CL.XXXI	901
EMS 52432 CL.XXXII	658C
EMS 57750 TYPE I	2008P
EMS 57737 TYPE I	9640AM
EMS 57735 TYPE I & M9157-M3955	905-3



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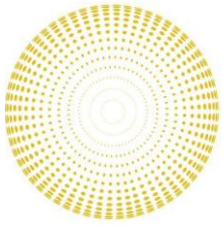
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### Rolls Royce



OEM SPECIFICATION	OVERHAUL (OMAT)	PAC DESIGNATION
MSRR 9507/1	3/114E	200S
MSRR 9507/3	3/81C	90C
MSRR 9507/4	3/65B	909R
MSRR 9507/5	3/188	906
MSRR 9507/8	3/189B	98C-1
MSRR 9507/18	3/160A	801
MSRR 9507/21	3/136B	810
MSRR 9507/23	3/201A	90VF
MSRR 9507/24		16
MSRR 9507/27	3/138A	98F
MSRR 9507/28		3030
MSRR 9507/29		16F
MSRR 9507/35	3/179B	912



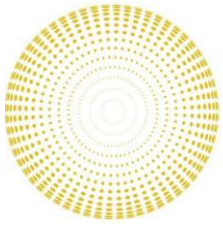
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GE Aircraft Engines



OEM SPECIFICATION	STANDARD PRACTICE MANUAL (SPM)	PAC DESIGNATION
A50TF87 CL.A		701NS
A50TF87 CL.B	C07-003	701B
A50TF87 CL.C		701SF
A50TF278 CL.A		2008PC
A50TF278 CL.B&C	C07-034	2008P
B20A4	C07-004	A13
B50TF13 CL.B		909B
B50TF27 CL.A&B	C07-007	127
B50TF28 CL.A		133
B50TF30 CL.A		911
B50TF33 CL.A		909/909R
B50TF40 CL.A	C07-012	98C/98C-1
B50TF40 CL.B	C07-012	98F
B50TF41 CL.A		118NS
B50TF42 CL.A	C07-013	12
B50TF52 CL.B	C07-014	138-2
B50TF53 CL.B	C07-015	140-1
B50TF56 CL.A	C07-016	906
B50TF56 CL.B		906PA
B50TF56 CHEM (WIRE)	C07-042	906W
B50TF57 CL.A	C07-017	19/19NS
B50TF63 CL.A		1410
B50TF64 CL.A		4101
B50TF72 CL.A	C07-020	658C
B50TF72 CL.B		658F
B50TF81 CL.A		1416
B50TF84 CL.A	C07-021	65
B50TF92 CL.A		901
B50TF119 CL.A	C07-022	908C
B50TF119 CL.C		908PAF
B50TF119 CL.D(WIRE)	C07-043	908W



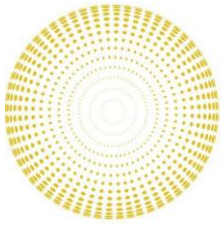
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**GE Aircraft Engines**



OEM SPECIFICATION	STANDARD PRACTICE MANUAL (SPM)	PAC DESIGNATION
B50TF137 CL.A	C07-027	131
B50TF137 CL.B	C07-027	130NS
B50TF142 CL.A		1424
B50TF143 CL.A		1426
B50TF155 CL.A	C07-025	T400
B50TF161 CL.A		16
B50TF161 CL.B	C07-023	PAC16F/16FM
B50TF161 CHEM(ONLY)	C07-056	PAC16W
B50TF162 CL.A		9620AM
B50TF166 CL.A		912
B50TF173 CL.A		D15
B50TF183 CL.A		R80
B50TF185 CL.A		X40
B50TF190 CL.A	C07-031	T800
B50TF192 CL.A	C07-032	9620AM
B50TF195 CL.A		9950AM
B50TF202 CL.A		718A
B50TF202 CL.B	C07-038	718B
B50TF202 CL.D	C07-041	718F
B50TF202 CL.E(WIRE)	C07-049	718W
B50TF203 CL.A		718BBA
B50TF204 CL.A		1444
B50TF205 CL.A		1418
B50TF206 CL.A		1446
B50TF207 CL.A		8105
B50TF208 CL.A		915E
B50TF222 CL.A&C	C07-037	905-3



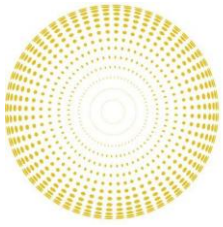
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COMPARISON GUIDE

GE Power Systems



OEM SPECIFICATION	PAC DESIGNATION
A50AG1	2008PG1(CUSTOMER SPECIFIC)
A50A557	2008P
A50A558	2008PC
A50A565	701B
B50AG5(GT20)	9950AM
B50AG6(GT33)	9330AM
B50AG12	9330AMF
B50AG16(SUPER B BOND COAT)	9620AMPS
B50A842	64CO
B50A888	4101A
B50A889	6CO
B50A890	908C
B50A891	906
B50A892	9620AM
B50A893	131
B50A917	718F
B50A918	T400
B50A919	25F
B50A920	8106
B50A927	98GE
B50A960	46GEHV AND 46HVT



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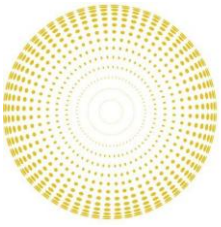
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COMPARISON GUIDE

Pratt & Whitney



**Pratt & Whitney**  
A United Technologies Company

OEM SPECIFICATION	PAC DESIGNATION
AMS 7875	131
AMS 7879	126
PWA 1302	125
PWA 1304	123
PWA 1306	124
PWA 1307	130
PWA 1313	118NS
PWA 1315	98C
PWA 1316	90VF
PWA 1317	98F
PWA 1318	90C
PWA 1319	98F1
PWA 1321	909/909R
PWA 1335	901
PWA 1337	906
PWA 1347	908C
PWA 1349	905-3
PWA 1352-1	138
PWA 1352-2	140
PWA 1353	91F
PWA 1355	901-2
PWA 1364	131-1
PWA 1380	906PA



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## THERMAL SPRAY POWDERS COMPARISON GUIDE

### Pratt & Whitney Canada



#### Pratt & Whitney Canada

Une société de United Technologies / A United Technologies Company

OEM SPECIFICATION	PAC DESIGNATION
CPW 213	118NS
CPW 218	90C
CPW 236	90VF
CPW 247	906
CPW 387	93652AM
CPW388	2020D
CPW490	906PA
CPW 517	905-3

### Siemens Westinghouse

# SIEMENS Westinghouse

OEM SPECIFICATION	PAC DESIGNATION
SICOAT 2231	92231AM
SICOAT 2453	92453AM
SICOAT 3453	2008P
83324	658F
83336	9950AM

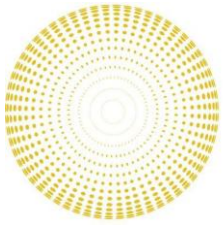
### SNECMA



## Snecma

SAFRAN Group

OEM SPECIFICATION	PAC DESIGNATION
DMR 33-087	905-3

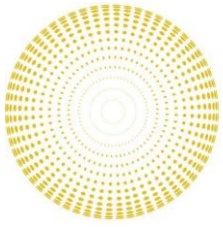


### PAC Powder List

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Aluminum Based Alloys Powders</i>					
19NS	Pure Aluminum	-200+325 Mesh	AL 104	54NS-1	
901	88Al-12Si	-140+325 Mesh	AL 102	52C	GE: B50TF92 CI A
901MOD	88Al-12Si	-200+15µm			
8112PA	6061 Type Aluminum	-325+15µm			

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Ceramic Powders</i>					
2100P	Pure Yttrium Oxide	-170 + 325 Mesh			
2100P1	Pure Yttrium Oxide	-170 + 22 µm			
701NS	Gray Aluminum Oxide	-270+11µm	ALO 105	101NS	
701B	Gray Aluminum Oxide	-140+22µm	ALO 159	101BNS	GE: A50TF87 CI B GE: A50A565
702	Titanium Dioxide	-270+11µm		102	
705-1	White Aluminum Oxide	-270+11µm	ALO 101	105NS	
705SF	White Aluminum Oxide	-25µm+5µm		105SF	
1106	Chromium Oxide	-140+15µm		106NS	
1106F	Chromium Oxide	-325+11µm	CRO 167	106F	
1106SF	Chromium Oxide	-325+22µm	CRO 179		
730	Alumina-13 Titania	-325+11µm	ALO 187	130	
731	Alumina-40 Titania	-325+11µm	ALO 121	131VF	
732F	Chromium Oxide-3 Silica	-270+11µm	CRO 192	136F	
801	Zirconia-5 Calcia	-270+11µm		201NS	
801B	Zirconia-5 Calcia	-200+30 µm		201BNS	

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Cermet Blends</i>					
3030	MgO-ZrO+NiCr Blend 65/35	-230+11µm	ZRO 119	303NS	
3030-1	MgO-ZrO+NiCr Blend 65/35	-200+5µm		303NS-1	
4101A	AlO+NiAl Blend 70/30	-170+11µm		410NS	
4101B	AlO+NiAl Blend 55/45	-170+11µm			
4210	MgO-ZrO+NiAl Blend 65/35	-170+11µm	ZRO 105	421NS	
4410	MgO-ZrO+NiCr Blend 65/35	-140+11µm		441NS	



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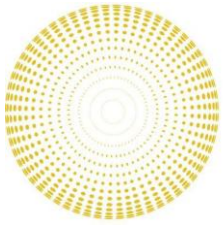
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PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Chromium Tungsten Carbide Powders &amp; Blends</i>					
123	Chromium Carbide, Fine	-270+5 μm	CRC 105		
124	Chromium Carbide, Coarse	-140 + 325 Mesh	CRC 107	70CNS	

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Chromium Tungsten Carbide Powders &amp; Blends Cont.</i>					
125	Cast WC-12% Co	-200+325 Mesh	WC 104	71NS	PWA: 1302
126	Cast WC-12% Co	-325+5 μm	WC 106	71VFNS	AMS: 7879
127	Sintered WC-12% Co	-325+5μm	WC 114	72FNS	GE: B50TF27 CL B
200GE	Sintered WC-17% Co	-325+11μm	WC559	73FNS-1	
200S	Sintered WC-17% Co	-270+11μm	WC 128-2	73FNS-2, 2005	MSRR: 9507/1
200SF	Sintered WC-17% Co	-325 + 5μm		73SFNS	
129	CrC+ NiCr Blend 85/15	-140+11μm		80NS	
130	CrC+ NiCr Blend 75/25	-140+11μm	CRC 108	81NS	GE: B50TF137 CI B PWA: 1307
131	CrC+ NiCr Blend 75/25	-325+5 μm	CRC 106	81VFNS	GE: B50TF137 CI B PWA: 1307
131-1	CrC+ NiCr Blend 93/7	-325+5 μm	CRC 184	82VFNS	GE: B50TF137 CI A AMS: 7875
133	CrC+CoAlloy +NiAl Blend	-170+11μm		430NS	GE: B50TF28 CI A
134SP	CrC + NiCrAlY Blend	-325+11μm		5241	
911	WC-Co+Ni Alloy + NiAl Blend	-170+11μm		439NS	
1500F	WC Co Cr 86/10/4	-270+20μm	1350VM	5163	
1500F2	WC Co Cr 86/10/4	-325+11μm	1350VF	5164	
5129	Sintered CrC + NiCr Blend 75/25	-325+15μm	1375VM		
8427	WC – CrC – Ni	-325+μm	WC733/1356		

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Cobalt Based MCrAlY Powders</i>					
9290AMF	Co-29Cr-6Al.3Y	-325+22 μm	CO 242-3	4197	
9330AM	Proprietary CoNiCrAlY	-325+5 μm	CO 249	4200	GE: B50AG6
9330AMC	Proprietary CoNiCrAlY	-140+325 Mesh	CO 249	4199	
9330AMF	Proprietary CoNiCrAlY	-325+22 μm	CO 249-4	4198	
9348AM	Proprietary CoCrAlY	-325+5 μm	CO 110	345, 360	



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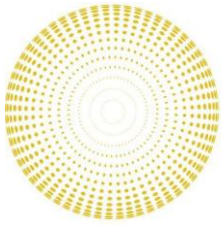
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PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Cobalt Based MCrAlY Powders</i>					
9950AM	Co-32Ni-21Cr-8Al-.5Y	-325+11 μm	CO 210-1	9954	GE: B50TF195 CI A EMS: 57741B
9950AMC	Co-32Ni-21Cr-8Al-.5Y	-170+400 Mesh	CO 159	995C	EMS: 57741A
9950AMF	Co-32Ni-21Cr-8Al-.5Y	-325+22 μm	CO 210-24	995, 4195	GE: B50TF195 (Chemistry Only) GE: B50AG5 CPW:528-3 PD83336AB EMS: 39664 Class II

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Cobalt Based Alloys Powders</i>					
6CO	Co-6	-170+325 Mesh	CO 106		
46GEHV	Co-6	-325+20 μm	106-1	4060	
46HVT	Co-6	-270+22 μm			GE: B50A960
25F	L-605	-325+15 μm	CO 308		GE: A50A919
X40	X-40/HS31	-140+325 Mesh	CO 285	X40	
90C	Co-25Cr-10Ni-7.5W, Coarse	-200+325 Mesh	CO 105	45C	PWA: 1318 CPW: 218 MSRR: 9507/3

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Cobalt Based Alloys Powders Cont.</i>					
90VF	Co-25Cr-10Ni-7.5W, Fine	-325+5 μm	CO 103	45VF	PWA: 1316 CPW: 236 MSRR: 9507/23
91C	Co-47Al	-200+325 Mesh			PWA: 1316 CPW: 236 MSRR: 9507/23
509	MM 509	-325+11 μm	CO 222	MM509	
750GELCF	F75	-325+11μm			
8106	FSX-414	-325+11 μm	CO 263-2		
8405	CM64	-140+325 Mesh	CO 114-2		
T400	Co-28Mo-8Cr-2Si	-325+11μm	CO 109	66FNS	GE: B50TF155 CI A
T800	Co-28Mo-17Cr-3Si	-325+11μm	CO 111	68FNS	GE: B50TF190 CI A



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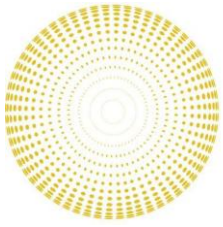
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PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Copper Based Alloys Powders</i>					
10	Pure Copper	-170+325 Mesh	CU 105	55	
12	Cu-38Ni, Coarse	-200+325 Mesh	CU 103	57NS	GE: B50TF42 CI A
12F	Cu-38Ni, Fine	-325+11µm		57VF	
16	Cu-9.5 Al-1Fe, Coarse	-120+325 Mesh	CU 114	51NS	
16F	Cu-9.5 Al-1Fe, Fine	-270+15µm	CU 104	51F	GE: B50TF161 CI B
658C	Cu-36.5 Ni-5In, Coarse	-200+325 Mesh	CU 102	58NS	GE: B50TF72 CI A
658F	Cu-36.5 Ni-5In, Fine	-325+15µm	CU 101		GE: B50TF72 CI B

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Clearance Control &amp; Abradables Powders</i>					
909B	Ni-18Al	-170+270 Mesh		955	
904	Pure Polyester	-100+325um		600NS	
905-3	Al-Si/40 Polyester	-100+10µm	ALO 202	2010, 601NS	GE: B50TF222 CI A & C PWA: 1349 CPW: 517 DMR: 33-087 EMS: 57735 M91547-M3955
138	Ni-25C	-170+400 Mesh	NI 114	307NS	PWA:1352-1
138-1	Ni-25C	-170+400 Mesh		307-1	FP5045
138-3	Ni-25C	-170+ 400 Mesh	NI 114-2	307-2	
138-2	Ni-25C	-170+30µm	NI 120	307-3	GE: A50TF87CLA
140	Ni-15C	-170+400 Mesh	NI 126	308NS	PWA: 1352-2
140-1	Ni-15C	-170+400 Mesh	NI 115	308-3	GE: B50TF53 CLB
140-2	Ni-15C	-170+400 Mesh	NI 126-1	308-1	
141-3	Ni-20C	-170+400 Mesh	NI 765	309-3	
3010	Ni-14Cr-5Al-4BN	-120 + 325 Mesh		301NS	
16904	Aluminum Bronze Polyester Blend	-120+11 µm		605NS	
90414	Aluminum Bronze Polyester Comp	-120+11 µm		610NS	
2050	8YZ+Polyester Blend	-170+11µm		XPT395	
9200	Al-Si-HBN Composite	245		320NS	

PAC Alloy No.	Material Composition	Particle	Comparable
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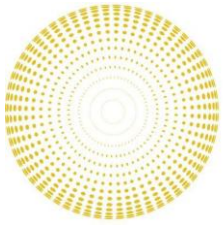
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<i>Clearance Control &amp; Abradables Powders Cont.</i>		Size	Materials		OEM Approvals
92042AC	CoNiCrAlY + 8 hBN + 14 Poly Blend	-80Mesh +11µm		2042	
92043AC	CoNiCrAlY +5 hBN + 16 Poly Blend	-80Mesh +11µm		2043	

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Exothermic Composites &amp; Bond Coat Powders Cont.</i>					
912	Ni-5Al-5Mo	-140+325 Mesh	NI 453	447NS	GE: B50TF166 CL A MSRR: 9507/35
930	Fe-10Al-1Mo	-120+325 Mesh		448	
932	Fe-3Al-3C-3Mo	-120+325 Mesh		449	
906	Ni-5Al	-170+325 Mesh	NI 109	450NS	GE: B50TF56 CL A GE: B50A891 PWA: 1337 CPW: 247 MSRR: 9507/5 EMS: 57746 EMS: 5752432 AD
906PA	Pre-Alloyed Ni-5Al	-170 + 325 Mesh		480NS	GE: B50TF56 CL B PWA: 1380 CPW: 490
906PAF	Pre-Alloyed Ni-5Al	-325+11µm		4008NS	
906PAW	Pre-Alloyed Ni-5Al	-170+325 Mesh	NI 185		
6906	Sintered Ni-5Al	-170 + 325 µm	NI 1037		
908PAF	Pre-Alloyed Ni-18Cr-6Al, Fine	-270 + 11 µm			
9590	Fe-37Ni - 6Al	-120+45µm		959	
909R	Ni-20Al	-140+270 Mesh	NI 108	404NS	GE: B50TF33 CL A PWA: 1321 MSRR: 9507/4
920	Ni-9Cr-7Al-5Mo-2Si	-140+325 Mesh		442	
908C	Ni-18Cr-6Al	-140+325 Mesh	NI 122	443NS	GE: B50TF119 CL A GE: B50A890 PWA: 1347 EMS: 57748A
922	Ni-9Cr-7Al-5Mo-5Fe	-140+325 Mesh	NI 430	444	
940	Cu-10Al	-140+325 Mesh		445	

PAC Alloy No.	Material Composition	Particle	Comparable	
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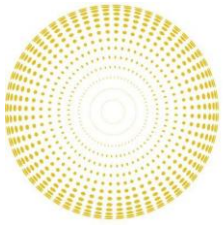
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<i>Iron Based MCrAlY Powders</i>		Size	Materials		OEM Approvals
9970AM	Fe-24Cr-8Al-.5Y	-325+11 μm	FE 124		

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Iron Based Alloys Powders</i>					
17-4	Fe 17Cr 4Ni 4Cu	-170+325 Mesh			
96C	316 Stainless Steel	-140 +325 Mesh		41C	
96F	316 Stainless Steel	-325 + 11 μm	FE 101	41F	
97	431 Stainless Steel	-120 +325 Mesh		42C	

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Molybdenum Powders and Blends</i>					
118NS	Pure Molybdenum	-170+325 Mesh	MO 102	63NS	GE: B50TF41 CI A PWA: 1313
118FNS	Pure Molybdenum, Fine	-325+5 μm	MO 103		
135	Ni Alloy + Moly Blend 70/30	-140+15μm		501	
902	Moly + Ni Alloy Blend 75/25	-140+15μm		505	

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Nickel Based Alloys Powders</i>					
R80	Rene 80®	-140+325 Mesh	NI 183	Rene 80	
82	IN 82®	-120+325 Mesh	NI 639		
98C-1	Nickel-20Cr, Coarse	-120+325 Mesh	NI 107	43C	GE: B50TF40 CI A PWA: 1315 MSRR: 9507/8
98F	Nickel-20Cr, Fine	-270+11μm	NI 106	43F	
98F-1	Nickel-20Cr, Super Fine	-325+5 μm	NI 105	43VF	
98F-4	Ni-20Cr	-325+15μm			
99	Ni-16Cr-8Fe	-140+325 Mesh	NI 488	44	
C276	C-276®	-325+15 μm	NI 544		
625F	IN 625®	-325+15 μm	NI 328-1	1005	
713F	IN 713®	-325+20 μm	NI 396	713F	
718B	IN 718®	-170+325 Mesh	NI 202	718	GE: B50TF202 CI B
718F	IN 718®	-325+15 μm	NI 202-2	1006	GE: B50TF202 CI D
738F	IN 738®	-325+15 μm	NI 284		
900	Pure Nickel, Coarse	-200+325 Mesh		56NS	
PAC Alloy No.	Material Composition	Particle	Comparable		



# PAC

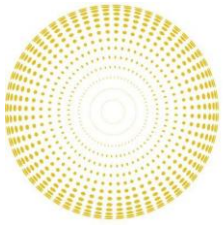
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## THERMAL SPRAY POWDERS COMPARISON GUIDE

<i>Nickel Based Alloys Powders</i>		Size	Materials		OEM Approvals
900F	Pure Nickel, Fine	-325+11µm	NI 101	56FNS	
8118	WASPALLOY®	-140+325 Mesh			
8119	NIMONIC 90®	-140+325 Mesh			
8121	IN 671®	-325+15 µm	NI 681		
8122	MM 002®	-170+325 Mesh	NI 378		
8383	H-W®	-120+325 Mesh			
8410	H263®	-120+325 Mesh			
8411	H-X®	-120+325 Mesh			
8412	230®	-120+325 Mesh			
8464	R195®	-325+11µm			
8521	H188®	-120+325 Mesh			

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Nickel Based MCrAlY Powders</i>		Size	Materials		Approvals
4610	Ni-Cr-Al-Co-Yttria	-140+325 Mesh		461NS	
8239	Ni-17Cr-12Al-23Co-.5Y	-325+15 µm	NI 191-4		
8246	Ni-20Cr-8.5Al-23Co-.6Y-4Ta	-400+15 µm	NI 482-2	997	
9020AM	Proprietary NiCrAlY	-325+11 µm	NI 535	4469	
9030AM	Proprietary NiCrAlY	-325+11 µm	NI 548		
9242AMF	NiCrAlY+Ta Re Hf Si	-325+15µm	NI 256		
9376AM	Proprietary MCrAlY	-325+5 µm	NI 191	376	
9386AM	Proprietary NiCoCrAlY	-325+5 µm	NI 192	386	
9610AM	Ni-17Cr-6Al-.5Y	-325+11 µm	NI 346	961	
9620AM	Ni-22Cr-10Al-1Y	-140+270 Mesh	NI 211	962	GE: B50TF192 CI A GE: B50TF162 CI A GE: A50TF892 CI A

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Nickel Based MCrAlY Powders Cont.</i>		Size	Materials		Approvals
9620AMF	Ni-22Cr-10Al-1Y	-325+22 µm	NI 343	21,144,516	
9620AMF4	Ni-22Cr-10Al-1Y	-325+16µm	NI 211-4		
9620AMPS	Ni-22Cr-10Al-1Y	-140+400 Mesh	NI 211-2	9621	
9630AM	Ni-25Cr-6Al-.5Y	-170+325 Mesh	NI 278	963	
9640AM	Ni-31Cr-11Al-.6Y	-170+325 Mesh	NI 246-4	964	EMS: 57737 TY 1
92231AM	Proprietary MCrAlY	-325+5 µm	CO 301	4201	
92453AM	Proprietary MCrAlY	-325+5 µm	NI 666	4485	
93651AM	Proprietary NiCoCrAlY	-325+5 µm	NI 130	365-1	



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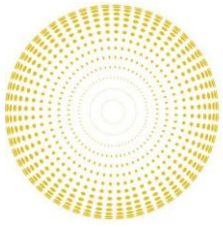
## THERMAL SPRAY POWDERS COMPARISON GUIDE

PAC Alloy No.	Material Composition	Particle Size	Comparable Size		OEM Approvals
<i>Nickel Based MCrAlY Powders Cont.</i>					
93652AM	Proprietary NiCoCrAlY	-200+400 Mesh	NI 171	365-2, 382NS-2	

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Self Fluxing Powders</i>					
65	Ni-10Cr-3Si-3B-2.5Fe	-120+325 Mesh	NI 563	12C	
69	Ni-14Cr-4Si-4Fe-3B-.5C	-140+325 Mesh		14C	
69F	Ni-14Cr-4Si-4Fe-3B-.5C	-270+15µm		14F	
60E	Ni-17Cr-4Si-4Fe-3.5B-1C	-140+325 Mesh	NI 167	15E	
60F	Ni-17Cr-4Si-4Fe-3.5B-1C	-270+15µm	NI 167-1		
600	Ni-16Cr-4Si-4B-3Mo-3Cu	-120+325 Mesh	NI 553	16C	
63	Co-24Ni-18Cr-6Mo-4Si-3B	-120+325 Mesh	NI 563	18C	
64	Ni-16Cr-4Si-4B-2Mo-2Cu-2W	-120+325 Mesh		19E	
86	NiCrSiB/WC-Co 65/35 Blend	-120-325 Mesh	NI 546	31C	
87	WC-Co/NiCrSiB 80/20 Blend	-120+325 Mesh	WC 572	32C	
89F	WC-Co/NiCrSiB 50/50 Blend	-270+15µm	WC 487	34F	
89FP	WC-Co/NiCrSiB 50/50 Blend	-270+15µm		34FP	
81	NiCrSiB/WC-Ni 50/50 Blend	-120+325 Mesh	WC 562	36C	

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Titanium Based Alloys Powders</i>					
6Al/4V	Ti 6Al 4V HDH	-60+100 Mesh			
6Al/4V	Ti 6Al 4V HDH	-80+200 Mesh			
6Al/4V	6Al/4V HDH	-170 Mesh			
8245B	CP Ti HDH	-60+100 Mesh			
8245C	CP Ti HDH	-80+200Mesh			

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Thermal Barrier Top Coats Cont.</i>					
2008PLN	High Purity Zirconia- 8 Yttria	-140+15µm		204-XCL	
2008PLNC	High Purity Zirconia- 8 Yttria	-200+400 Mesh		204C-XCL	
2008P	Zirconia- 8 Yttria	-140+15µm	ZRO 113	204NSG	GE: A50TF278 CI C GE: A50TF557



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## THERMAL SPRAY POWDERS COMPARISON GUIDE

PAC Alloy No.	Material Composition	Particle Size	Comparable Materials		OEM Approvals
<i>Thermal Barrier Top Coats Cont.</i>					
2008PC	Zirconia- 8 Yttria	-200+400 Mesh	ZRO 182		GE: A50TF278 CI A GE: A50A558
2008PD	Zirconia- 8 Yttria	-140+15µm		SPN2000	
2008PF	Zirconia- 8 Yttria	-325+11µm		204F	
2008PRR	Zirconia- 8 Yttria	-200+400 Mesh	ZRO 154	204BNS	
2008PWA	Zirconia-8Yttria	-140+15 µm	ZRO 114	204NS	
2020D	Zirconia-20 Yttria	-170+22 µm			CPW: 388
810S	Zirconia -20 Magnesia	-200+11µm	ZRO 103	210NS	MSRR: 9507/21
810P	Zirconia -20 Magnesia	-200+11µm		210NS-1	

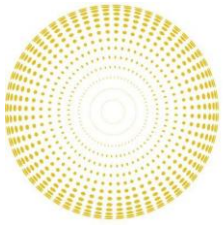
PAC Quality System conforms to AS9100 & GE S-1000  
All test labs are GE,SAFRAN,NADCAP,and ISO 17025 approved

### Chinese Distributor

Shanghai Hangzhao Technology Co.,Ltd

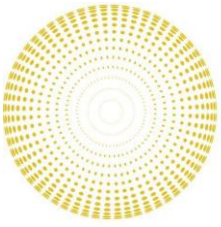
Hank Tian  
P:18019036369  
E: hank@anoder.cn





### Particle Size Comparator

US Sieve Number	Micron Opening	Astm 11 Tolerance	Opening Inches
25	710	+/-30um	0.0278
30	600	+/-25um	0.0234
35	500	+/-20um	0.0197
40	420	+/-19um	0.0165
45	350	+/-16um	0.0139
50	300	+/-14um	0.0117
60	250	+/-12um	0.0098
80	180	+/-9um	0.007
100	150	+/-8um	0.0059
120	125	+/-7um	0.0049
140	106	+/-6um	0.0041
170	90	+/-5um	0.0035
200	75	+/-5um	0.0029
230	63	+/-4um	0.0025
270	53	+/-4um	0.0021
325	45	+/-3um	0.0017
400	38	+/-3um	0.0015
500	25		



### Periodic Table

**Periodic Table  
of the  
Elements**

1 H 1.01																	2 He 4.00																												
3 Li 6.94	4 Be 9.01											5 B 10.81	6 C 12.01	7 N 14.01	8 O 15.99	9 F 19.00	10 Ne 20.18																												
11 Na 22.99	12 Mg 24.31											13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.07	17 Cl 35.45	18 Ar 39.95																												
19 K 39.10	20 Ca 40.08	21 Sc 44.96	22 Ti 47.87	23 V 50.94	24 Cr 52.00	25 Mn 54.94	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.55	30 Zn 65.41	31 Ga 69.72	32 Ge 72.64	33 As 74.92	34 Se 78.96	35 Br 79.90	36 Kr 83.80																												
37 Rb 85.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.22	41 Nb 92.91	42 Mo 95.94	43 Tc (98)	44 Ru 101.07	45 Rh 102.91	46 Pd 106.42	47 Ag 107.87	48 Cd 112.41	49 In 114.82	50 Sn 118.71	51 Sb 121.76	52 Te 127.60	53 I 126.90	54 Xe 131.29																												
55 Cs 132.91	56 Ba 137.33	57 La 138.91	72 Hf 178.49	73 Ta 180.95	74 W 183.84	75 Re 186.21	76 Os 190.23	77 Ir 192.22	78 Pt 195.08	79 Au 196.97	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.98	84 Po (209)	85 At (210)	86 Rn (222)																												
87 Fr (223)	88 Ra (226)	89 Ac (227)	104 Rf (261)	105 Db (262)	106 Sg (266)	107 Bh (264)	108 Hs (270)	109 Mt (268)	110 Ds (281)	111 Rg (272)																																			
<table border="1"> <tr> <td>58 Ce 140.12</td> <td>59 Pr 140.91</td> <td>60 Nd 144.24</td> <td>61 Pm (145)</td> <td>62 Sm 150.36</td> <td>63 Eu 151.97</td> <td>64 Gd 157.25</td> <td>65 Tb 158.93</td> <td>66 Dy 162.50</td> <td>67 Ho 164.93</td> <td>68 Er 167.26</td> <td>69 Tm 168.93</td> <td>70 Yb 173.04</td> <td>71 Lu 174.97</td> </tr> <tr> <td>90 Th 232.04</td> <td>91 Pa 231.04</td> <td>92 U 238.03</td> <td>93 Np (237)</td> <td>94 Pu (244)</td> <td>95 Am (243)</td> <td>96 Cm (247)</td> <td>97 Bk (247)</td> <td>98 Cf (251)</td> <td>99 Es (252)</td> <td>100 Fm (257)</td> <td>101 Md (258)</td> <td>102 No (259)</td> <td>103 Lr (262)</td> </tr> </table>																		58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (145)	62 Sm 150.36	63 Eu 151.97	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.04	71 Lu 174.97	90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np (237)	94 Pu (244)	95 Am (243)	96 Cm (247)	97 Bk (247)	98 Cf (251)	99 Es (252)	100 Fm (257)	101 Md (258)	102 No (259)	103 Lr (262)
58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (145)	62 Sm 150.36	63 Eu 151.97	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.04	71 Lu 174.97																																
90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np (237)	94 Pu (244)	95 Am (243)	96 Cm (247)	97 Bk (247)	98 Cf (251)	99 Es (252)	100 Fm (257)	101 Md (258)	102 No (259)	103 Lr (262)																																

### Temperature Conversion

Centigrade to Fahrenheit

$$F = 9/5C + 32$$

Fahrenheit to Centigrade

$$C = 5/9 (F - 32)$$

#### Chinese Distributor

Shanghai Hangzhao Technology Co.,Ltd

Hank Tian

P:18019036369

E: hank@anoder.cn

