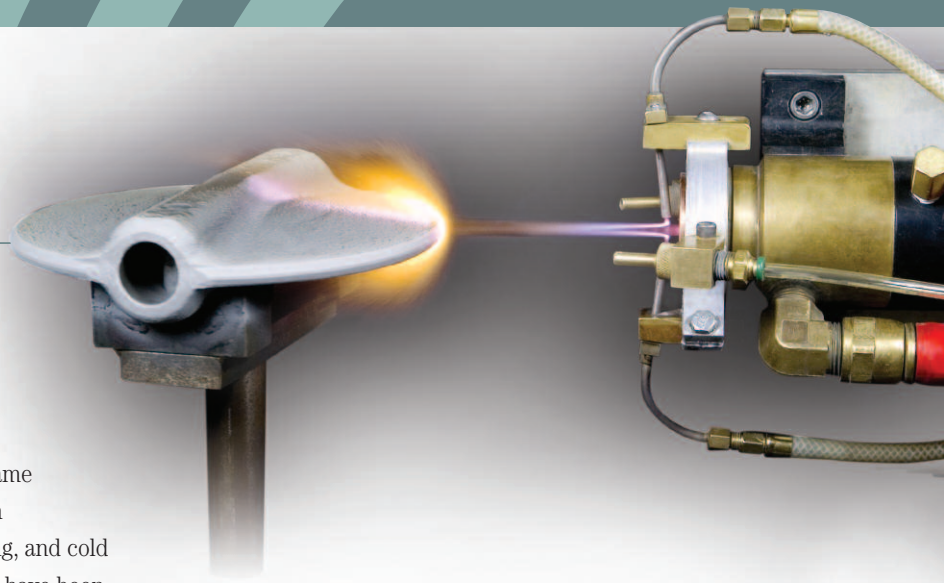


Thermal Spray



Thermal Spray processes have been a popular application for CPP powder metals for many years. Micro-Melt® gas atomized powders have been used in a wide range of thermal spray processes including flame and plasma spraying, HVOF spraying, vacuum plasma spraying, low-pressure plasma spraying, and cold spraying. These highly alloyed metal powders have been used to enhance surface properties in harsh environments and to protect industrial surfaces from corrosion, oxidation, and erosion due to wear and extreme temperatures. They have been used in a wide range of applications including jet engines, land-based turbine components, offshore oil applications, as well as numerous automotive and industrial components.

Standard Packaging

PE Bottles	5 kg	10 lbs
PE Pails	25 kg	50 lbs

Other packages available upon request.

Standard Sizes

	Micron	Mesh
Flame and	125 / 45	-120 / +325
Plasma Spraying	105 / 45	-140 / +325
	90 / 45	-170 / +325
	45 / 16	-325 / +16µ
HVOF	53 / 22	-270 / +22µ
	45 / 16	-325 / +16µ
VPS / LPSP	45 / 16	-325 / +16µ
	- 44	-325

Tolerances Max. 5% over and 10% under.

Measuring Method Laser Equipment ASTM B214

Microtrac. Other screen sizes available upon request.

Ready to Meet Your Needs

A pioneer in the development and production of metal powders, CPP offers a tremendous variety of alloys covering nearly every application. Great pride is taken in our ability to control the alloy's chemistry and particle size to meet customers' stringent requirements. Superb consistency is provided within and between production lots.

Being the only major powder metals manufacturer with production facilities in both North America and Europe enables CPP to supply customers in a timely and cost effective manner. Currently in place are one 450 kg and two 1000 kg furnaces in Bridgeville, PA, USA, a 1200 kg furnace in Woonsocket, RI, USA and twin 5500 kg furnaces in Torshalla, Sweden. This is one of the largest capacities for gas atomized powder available from any manufacturer. Extensive research and development capabilities are available for developing new alloys to meet our customers' needs including a 150 kg furnace in Reading, PA, USA. Facilities include cover gas, vacuum, and air induction melt furnaces which are capable of using a variety of gasses for atomization depending upon the alloy being produced. Certifications include ISO 9001, AS 9100, and NADCAP.

Producing metal powders for over 40 years, CPP has hundreds of years of combined experience and is committed to continuous manufacturing improvement. Strategic relationships are often initiated with customers to develop and supply new powder metal alloys in the exact specification which best suits the requirements of their application.

Gas Turbine Refurbishment Powders

Micro-Melt®	Alloy	Nominal Chemical Composition (typical values in wt.%)										OEM Approval	
		Ni	Co	Cr	W	Mo	Al	Ti	Si	B	Others	GE-B50TF-	PWA
G26	BNi-4	Bal	—	—	—	—	—	—	3.5	2.0	—	26	—
G28	—	—	—	—	—	—	—	—	—	—	Yes	28	—
G72	CuNiIn	38.0	—	—	—	—	—	—	—	—	In: 5.0, Cu: Bal	72	—
G81	AMS 4782	Bal	—	19.0	—	—	—	—	10.0	—	—	81	—
G142	—	Bal	—	17.0	—	—	—	—	9.0	0.1	—	142	—
G143	—	Bal	—	15.0	—	—	—	—	8.0	—	—	143	—
G155	T-400	—	Bal	8.5	—	28.5	—	—	2.6	—	—	155	—
G173	D-15	Bal	10.0	15.0	—	—	3.5	—	—	2.3	Ta: 3.5	173	—
G183	Rene 80	Bal	9.5	14.0	4.0	4.0	3.0	5.0	—	—	—	183	—
G190	T-800	—	Bal	17.5	—	28.5	—	—	3.4	—	—	190	—
G191	IN738	Bal	8.5	16.0	2.6	1.7	3.5	3.5	—	—	Nb: 0.8, TA: 1.8	191	—
G192	NiCrAlY	Bal	—	21.0	—	—	10.0	—	—	—	Y: 1.0	192	—
G195	CoNiCrAlY	32.0	Bal	21.0	—	—	8.0	—	—	—	Y: 0.5	195	—
G202	IN718	Bal	—	19.0	—	3.0	0.5	1.0	—	—	Nb: 5.0, Fe: 18.0	202	—
G203	IN718+B	Bal	—	18.5	—	3.0	0.5	1.0	—	2.3	Nb: 5.0, Fe: 18.0	203	—
G204	AMS 4777	Bal	—	7.0	—	—	—	—	4.1	3.0	Fe: 3.0	204	—
G205	AMS 4778	Bal	—	—	—	—	—	—	4.5	2.9	—	205	—
G206	AMS 4779	Bal	—	—	—	—	—	—	3.5	1.9	—	206	—
G207	BNi-9	Bal	—	15.0	—	—	—	—	3.5	3.5	—	207	—
G242	BC52	Proprietary Composition for GE										242	—
G271	Rene 142	Proprietary Composition for GE										271	—
G304	MarM 509	10.0	Bal	23.0	7.0	—	—	0.2	—	—	TA: 3.5, C: 0.6	304	—
G305	MarM 509B	10.0	Bal	23.0	7.0	—	—	0.2	—	2.8	TA: 3.5, C: 0.6	305	—
P996	AMS 4776	Bal	—	13.0	—	—	—	—	4.5	2.9	Fe: 4.0	—	996
P1316	X-40	10.5	Bal	25.0	7.0	—	—	—	—	—	C: 0.55	—	1316
P1318	X-40	10.5	Bal	25.0	7.0	—	—	—	—	—	C: 0.55	185	1318
P1365-2	NiCoCrAlY	Bal	23.0	17.0	—	—	12.5	—	—	—	Y: 0.6	—	1365-2
M247	MarM 247	Bal	10.0	8.4	10.0	0.7	5.5	1.0	—	—	Ta: 3.5, Hf: 1.4	—	—
IN713	IN713	Bal	—	14.0	—	—	6.0	1.0	—	—	Nb: 2.0	—	—
A4783	AMS 4783	17.0	Bal	19.0	4.0	—	—	—	8.0	0.8	—	—	—
BRB	BRB	Bal	9.0	14.0	—	—	4.0	—	—	2.5	—	—	—
A914	A914	Bal	20.0	—	—	—	—	—	4.3	3.0	—	—	—

HVOF, Plasma Spray, and Flame Spray Powders

Micro-Melt®		UNS #	HVOF	Plasma	Flame	VPS	X - Ref
309L	Fe Based	S30983	•	•	•	•	
316L		S31683	•	•	•	•	41C
410		S41080	•	•	•		
410L			•	•	•		
420		S42080	•	•	•		
431		S43100		•	•		42C
6	Co Based	R30006	•				
CCM Plus® ¹			•				21
CCW			•				
T-400			•	•	•	•	
T-800			•	•	•	•	
600	Ni Based	N06600	•	•	•	•	44
625		N06625	•	•	•	•	IN625
622			•	•	•	•	
690			•				Alloy 52
H-13	Tool Steels	T20813	•	•			
A11LVC			•	•			

¹ U.S. Patent Number 5,462,575

The information and data presented herein are typical or average values and are not a guarantee of maximum or minimum values. Applications specifically for material described herein are made solely for the purpose of illustration to enable the reader to make his or her own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes. There is no representation that the recipient of this literature will receive updated editions as they become available.

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Please contact us with your requests for alloys not listed. We have many more alloys available that space limitations prevent us from listing.



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