



PowderRange



AM metal powders from LPW

-  Comprehensive range of metal powders optimised for use on all AM machines
-  24 hours from order to dispatch
-  LPW certified to AS9120, AS9100, ISO9001, ISO13485

PowderRange

AM metal powders from LPW

Our PowderRange is a comprehensive range of premium quality, off the shelf metal powders, manufactured and optimised specifically for metal Additive Manufacturing (AM).

LPW's powders are developed for LMD (Laser Metal Deposition), SLM (Selective Laser Melting) and EBM (Electron Beam Melting) and are optimised to the specific machine type including EOS, SLM Solutions, Concept Laser, Renishaw, 3D Systems, TRUMPF and Arcam.

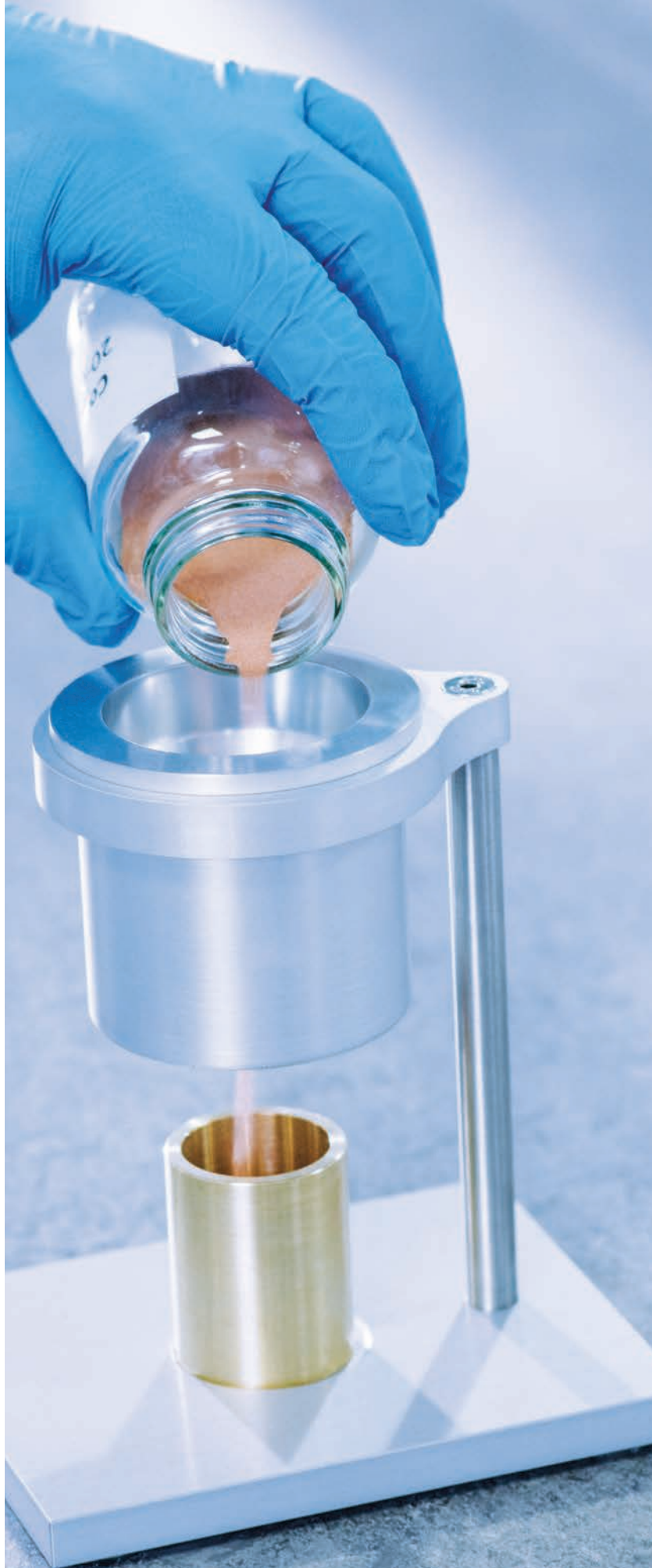
Adding our intelligence in powders, we help you select the right grade of powder at the right price, so with LPW you never buy over-specified powder.

We are happy to facilitate R&D projects and prototyping and for larger volumes, long term supply agreements are available.

With an impressive range of standard powders in stock we offer rapid delivery with 24 hours from order to dispatch, and will do our very best to meet the tightest of deadlines wherever you are in the world.



If the standard AM metal powder you're looking for is not on our list of ready to ship materials, contact LPW directly for our materials available on request.



Custom Powders

For many alloys LPW is able to offer different products of the same composition, optimised for your particular application.

By use of different atomisation gases to vary mechanical properties, we can achieve improved flowability of powder for 'flow-critical' machine platforms, lower residual elements for more demanding applications, and controlled interstitials for enhanced mechanical properties.

The experienced team of applications engineers here at LPW add intelligence to AM development by:

- Developing new powder chemistries to deliver specific properties
- Exploring novel alloys
- Investigating compositions for new applications

To select the right metal powder, or discuss a custom alloy, contact LPW.

lpwtechnology.com



Aluminium Based Powders

Process			Alloy	Chemical Composition (wt %)						Contact LPW directly for similar specifications eg				
Selective Laser Melting	Electron Beam Melting	Laser Metal Deposition		Element	Min	Max	Element	Min	Max	UNS	DIN	ASTM	AMS	Similar Grades
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	LPW AlSi7Mg	Al	Bal	Bal	Mn	0.50	0.6	A03560				
				Cu		0.04	O		0.2					
				Fe		0.14	Si	6.7	7.3					
				Mg	0.25	0.45	Ti	0.08	0.12					
							Zn		0.09					
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	LPW AlSi10Mg	Al	Bal	Bal	Pb		0.02	A13600	3.2381			
				Cu		0.05	Si	9.0	11.0	A03600				
				Fe		0.25	Ti		0.15					
				Mg	0.25	0.45	Zn		0.1					
				Mn		0.10	O		0.2					
				Ni		0.05	N		0.2					

Cobalt Based Powders

Process			Alloy	Chemical Composition (wt %)						Contact LPW directly for similar specifications eg				
Selective Laser Melting	Electron Beam Melting	Laser Metal Deposition		Element	Min	Max	Element	Min	Max	UNS	DIN	ASTM	AMS	Similar Grades
		<input checked="" type="checkbox"/>	LPW Co6	C	0.90	1.25	Ni		3.0				5788	Cobalt-6
				Co	Bal	Bal	O		0.06					
				Cr	26.5	30.5	P		0.025					
				Fe		3.0	S		0.025					
				Mn		0.5	Si	1.2	2.0					
				Mo		1.0	W	3.5	5.5					
				N		0.06								
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	LPW CoCr	Al		0.10	N		0.25	R31537		F75		MP1
				B		0.010	Ni		0.50					ISO 5832-4
				C		0.35	O		0.1					ISO 5832-12
				Co	Bal	Bal	P		0.020					
				Cr	27.00	30.00	S		0.010					
				Fe		0.75	Si		1.00					
				Mn		1.00	Ti		0.10					
				Mo	5.00	7.00	W		0.20					

Nickel Based Powders

Process			Alloy	Chemical Composition (wt %)						Contact LPW directly for similar specifications eg					
Selective Laser Melting	Electron Beam Melting	Laser Metal Deposition		Element	Min	Max	Element	Min	Max	UNS	DIN	ASTM	AMS	Similar Grades	
☑	☑	☑	LPW 718**	Al	0.20	0.80	Mn		0.35				5662		
				B		0.006	Mo	2.80	3.30						
				Bi		0.00003	Nb+Ta	4.75	5.50						
				C		0.08	Ni	50.00	55.00						
				Ca		0.01	P		0.015						
				<i>**718 API grade available</i>	Co		1.00	Pb		0.0005					
				Cr	17.00	21.00	S		0.015						
				Cu		0.30	Se		0.0003						
				Fe	Bal	Bal	Si		0.35						
				Mg		0.01	Ti	0.65	1.15						
☑		☑		LPW 247LC	Al	5.4	5.8	Nb		0.1					CM-247LC
					B		0.02	Ni	Bal	Bal					
					C	0.04	0.08	O		0.015					
			Co		9.00	9.50	P		0.005						
			Cr		8.00	8.50	S		0.003						
			Fe			0.20	Si		0.03						
			Hf		1.20	1.60	Ta	3.1	3.4						
			Mg			0.005	Ti	0.6	0.9						
			Mo		0.40	0.60	W	9.3	9.7						
			N			0.02	Zr	0.005	0.015						
☑		☑	LPW 625	Al		0.40	Nb+Ta	3.15	4.15	N06625	2.4856	F3056	5599	Inconel® 625	
				C		0.10	N		0.02				5837	IN625	
				Co		1.0	Ni	Bal	Bal					Alloy 625	
				Cr	20.0	23.0	O		0.03						
				Cu		0.50	P		0.015						
				Fe		5.0	S		0.015						
				Mo	8.0	10.0	Si		0.5						
				Mn		0.50	Ti		0.40						
☑		☑	LPW XLC*	B		0.010	N		0.3	NO6002	2.4665	B435	5798	Hastelloy® X	
				<i>*low C available</i>	C		0.08	Ni	Bal	Bal					
				Co	1.5	2.5	O		0.03						
				Cr	20.5	23.0	P		0.015						
				Cu		0.2	S		0.015						
				Fe	17.0	20.0	Si		1.0						
				Mo	8.0	10.0	W	0.60	1.0						

Titanium Based Powders

Process			Alloy	Chemical Composition (wt %)						Contact LPW directly for similar specifications eg				
Selective Laser Melting	Electron Beam Melting	Laser Metal Deposition		Element	Min	Max	Element	Min	Max	UNS	DIN	ASTM	AMS	Similar Grades
✓	✓	✓	LPW CP Ti	C		0.08	O		0.18	R50250		B348 gr 1		ISO 5832-2
				Fe		0.2	Res Each		0.1					
				H		0.015	Res Total		0.4					
				N		0.03	Ti	Bal	Bal					
✓	✓	✓	LPW Ti64 Gd23	Al	5.5	6.5	O		0.13	R56407		B348 gr 23	4956	ISO 5832-3
				C		0.08	Res Each		0.1			F136		
				Fe		0.25	Res Total		0.4			F3001		
				H		0.0125	Ti	Bal	Bal					
				N		0.03	V	3.5	4.5					

Other Alloys

Process			Alloy	Chemical Composition (wt %)						Contact LPW directly for similar specifications eg				
Selective Laser Melting	Electron Beam Melting	Laser Metal Deposition		Element	Min	Max	Element	Min	Max	UNS	DIN	ASTM	AMS	Similar Grades
✓	✓	✓	LPW WC	C	3.7	4.1	W	Bal	Bal					
✓	✓	✓	LPW Cu	Cu	99.8									
✓	✓	✓	LPW Ta	Ta	99.9									
✓	✓	✓	LPW W	W	99.9									



Quality

At LPW we have a high level of expertise in Additive Manufacturing (AM) and a long experience of working with leading companies within the aerospace, medical and automotive industries.

All LPW powders are shipped with a certificate of conformance adding assurance that the specification has been confirmed by our world leading lab before it arrives with you.

With a clear focus on quality, LPW is proud to be certified to AS9100, AS9120, ISO9001 and ISO13485





Adding the personal touch

With AM metal powder manufacture in the UK, processing facilities in the UK and USA, and sales offices around the world, we add support to your metal Additive Manufacturing processes wherever you are.

To find your nearest office, visit

www.lpwtechnology.com