



 **Hoffmann Group**

Your Guide to Optimal Material Selection

Every project has unique requirements for material properties, strength, surface quality, and temperature resistance. This catalog helps you quickly and easily find the 3D printing powder that best fits your specific application.

<https://materials.hoffmann-am.com/startseite-eng>

TABLE OF CONTENTS

Contact	01
JP IN718	02
JP AlSi10Mg	03
JP 2.4665 (Hastelloy X)	04
JP 1.2343	05
JP 1.2709	07
JP 1.4542	09
JP 1.4404	10
JP Ti64 Grade5	11
JP Ti64 Grade23	12
JP PA12 black Zenith	13
JP PA12 white Zenith	14
JP PA12 Performance	15
JP PA12 GF	16

Your Reliable Partner for Metal Powders – A Complete Product Portfolio for Industrial Applications

Hello,

Sourcing metal powders is often more complex than it needs to be - involving multiple suppliers, different points of contact, and repeat qualification processes.

With our comprehensive metal powder portfolio, you can source stainless steels, tool steels, aluminium alloys, titanium alloys, and nickel-based alloys from a single, reliable supplier.

Many companies have already reduced their procurement effort by consolidating their metal powder suppliers. Are you taking advantage of this opportunity?

Your Benefits at a Glance:

- ✓ **Certified Quality & Industry Compliance:** Strict control of particle size distribution (PSD) and particle sphericity to meet the demanding requirements of industries such as mechanical engineering, automotive, and aerospace.
- ✓ **Batch-to-Batch Consistency & Full Traceability**
- ✓ **Optimized Particle Morphology** for Excellent Flowability
- ✓ **Expert Guidance on Anisotropy & Post-Processing**
- ✓ **Immediate Availability**

the result: less administrative overhead, consolidated procurement, enhanced process reliability, and one dedicated partner for your complete 3D printing powder portfolio.



Can You Simplify Your 3D Printing Powder Procurement Even Further?

I would be pleased to support you in selecting the right 3D printing powder and advise you on both technical and commercial aspects of your application.

Philippe Widdau

**Business Development Manager –
Additive Manufacturing**

✉ philippe.widdau@hoffmann-am.com

☎ +49 761 79116075





DATA SHEET-JP IN718

Product Overview

JP IN718 is a high-performance nickel-based superalloy offering outstanding high-temperature strength, excellent corrosion resistance, and superior oxidation resistance. Its microstructure and mechanical properties can be further enhanced through solution annealing and age hardening. As a result, it is widely used in demanding industries such as aerospace and gas turbine manufacturing.

Powder Specifications

Property	Standard	Min	Max	Unit
D10 [µm] (xc min)	ISO 13322-2	13	28	µm
D50 [µm] (xc min)	ISO 13322-2	24	39	µm
D90 [µm] (xc min)	ISO 13322-2	38	53	µm
Flow (Ø5,0mm, statically)	ASTM B964			s/50g
App. Density (Ø5,0mm, stat.)	ISO 3923-1:18-05			g/cm³

Chemical Composition

Element	Fe	Mo	Ni	Cr	Mn	Si	C	Nb	Ti	Co
Norm		RFA	RFA	RFA	RFA	RFA	ASTM E1019	RFA	RFA	RFA
Min		2,8	50	17				4,7	0,6	
Max		3,3	55	21	0,35	0,35	0,08	5,5	1,2	1
Unit	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Property	Value	Value
Tensile Strength	Rm=	Max. 1037N/mm²
Yield Strength	Re=	Max 690N/mm²
Elongation at Break	A=	Max. 34%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP AlSi10Mg

Product Overview

JP AlSi10Mg is an aluminum-based alloy that offers excellent weldability thanks to its silicon and magnesium content. It features outstanding casting properties, enabling the production of thin-walled components with high strength. The alloy has been specifically optimized for additive manufacturing.

Powder Specifications

Property	Standard	Min	Max	Unit
D10 [μm] (xc min)	ISO 13322-2	20	35	μm
D50 [μm] (xc min)	ISO 13322-2	33	48	μm
D90 [μm] (xc min)	ISO 13322-2	48	63	μm
Flow ($\varnothing 5,0\text{mm}$, statically)	ASTM B964	1	25	s/50g
App. Density ($\varnothing 5,0\text{mm}$, stat.)	ISO 3923-1:18-05	1.2		g/cm^3

Chemical Composition

Element	Al	Si	Mg	Mn	Fe	Ti	Zn	Cu	Pb	Sn	Ni
Standard		RFA	RFA	RFA	RFA	RFA	RFA	RFA	RFA	RFA	RFA
Min		9	0,20								
Max		11	0,45	0,45	0,55	0,15	1,10	0,05	0,05	0,05	0,05
Unit	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Property	Value	Value
Tensile Strength	Rm=	$400 \pm 5 \text{ N/mm}^2$
Yield Strength	Re=	$239 \pm 4 \text{ N/mm}^2$
Elongation at Break	A=	$7 \pm 3\%$

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP 2.4665 (Hastelloy X)

Product Overview

JP 2.4665 is a nickel-based alloy offering excellent high-temperature strength, outstanding corrosion resistance, and superior oxidation resistance. Thanks to its robust mechanical properties, it is widely used in demanding applications such as aerospace and gas turbine manufacturing.

Powder Specifications

Property	Norm	Min	Max	Unit
D10 [µm] (xc min)	ISO 13322-2	13	28	µm
D50 [µm] (xc min)	ISO 13322-2	24	39	µm
D90 [µm] (xc min)	ISO 13322-2	38	53	µm
Smaller 15µm (xc min)	ISO 13322-2			%
Larger 45µm	ISO 4497			%
Flow (Ø5mm, statically)	ISO 4490			s/50g
App. Density (Ø5mm, stat.)	ISO 3923-1:18-05			g/cm³

Chemical Composition

Element	Fe	Mo	Ni	Cr	Mn	Si	C	W	Al
Standard	ICP-OES	ICP-OES		ICP-OES	ICP-OES	ICP-OES	ASTM E1019	ICP-OES	ICP-OES
Min	17	8		20,5				0,2	
Max	20	10		23	1	1	0,03	1	0,5
Unit	Rest	wt-%	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Property	Unit	Unit
Tensile Strength	Rm=	Max. 770 N/mm²
Yield Strength	Re=	Max 590 N/mm²
Elongation at Break	A=	Max. 47%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP 1.2343

Product Overview

JP 1.2343 is a hot-work tool steel offering excellent toughness, high hot strength, and good thermal conductivity. Its high carbon content enables high hardness to be achieved even in the as-built condition. These properties make it an ideal material for tooling applications in plastic injection molding and high-pressure die casting.

Powder Specifications

Property	Norm	Min	Max	Unit
D10 [µm] (xc min)	ISO 13322-2	13	28	µm
D50 [µm] (xc min)	ISO 13322-2	24	39	µm
D90 [µm] (xc min)	ISO 13322-2	38	53	µm
+53µm	ISO 4497			%
+45µm	ISO 4497			%
-20µm	ISO 4497			%
Flow (Ø5,0mm, statically)	ASTM B964			s/50g
App. Density (Ø5,0mm, stat.)	ISO 3923-1:18-05			g/cm ³

Chemical Composition

Element	Fe	Mo	V	Cr	Mn	Si	C
Standard		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ASTM E1019
Min		1,1	0,25	4,8	0,3	0,8	0,3
Max		1,5	0,55	5,5	0,5	1,2	0,45
Unit	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Properties	Unit	Unit
Tensile Strength	Rm=	Max. 1800N/mm ²
Yield Strength	Re=	Max 1050N/mm ²
Elongation at Break	A=	Max. 9%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



Hardness	HRC=	Min. 46HRC
----------	------	------------

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP 1.2709

Product Overview

JP 1.2709 is a high-performance metal powder belonging to the family of maraging steels. From a metallurgical perspective, the low alloying contents of carbon, silicon, manganese, titanium, and aluminum have a significant influence on the material's properties. Maraging steels are known for their outstanding mechanical performance and excellent machinability in the as-built condition. A simple heat treatment (490°C for 6 hours) enables the material to achieve exceptionally high strength and hardness. This hot-work tool steel is widely used in tooling and mold making, as well as for the production of high-strength structural components.

Powder Specifications

Property	Norm	Min	Max	Unit
D10 [μm] (xc min)	ISO 13322-2	16	26	μm
D50 [μm] (xc min)	ISO 13322-2	26	36	μm
D90 [μm] (xc min)	ISO 13322-2	40	50	μm
-15 μm (xc min)	ISO 13322-2	-	5.0	%
Flow ($\varnothing 5\text{mm}$, statically)	ASTM B964	1	5	s/50g
App. Density ($\varnothing 5\text{mm}$, stat.)	ISO 3923-1:18-05	3,5	-	g/cm^3

Nominal PSD: -45/+15 μm

Chemical Composition

Element	Al	Fe	Ti	Mo	Ni	Co	Mn	Si	Cr	P	S	C
Standard	ED-XRF	ED-XRF	ED-XRF	ED-XRF	ED-XRF	ED-XRF	ED-XRF	ED-XRF	ED-XRF	ED-XRF	ASTM E1019	ASTM E1019
Min	-		0,5	4,5	17,0	8,5	-	-	-	-	-	-
Max	0,15		1,2	5,2	19	10	0,1	0,1	0,3	0,01	0,01	0,03
Unit	wt-%	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



Mechanical Properties

Property	Unit	Unit
Tensile Strength	Rm=	1030 N/mm ²
Yield Strength	Re=	810 N/mm ²
Elongation at Break	A=	4-12%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP 1.4542

Product Overview

JP 1.4542 is a precipitation-hardening stainless steel powder specifically developed for additive manufacturing. Thanks to its excellent mechanical strength, high toughness, and outstanding performance, it is widely used in a variety of demanding industrial applications.

Powder Specifications

Eigenschaft	Norm	Min	Max	Unit
D10 [µm] (xc min)	ISO 13322-2	13	28	µm
D50 [µm] (xc min)	ISO 13322-2	24	39	µm
D90 [µm] (xc min)	ISO 13322-2	38	53	µm
Smaller 15µm (xc min)	ISO 13322-2		5.0	%
Larger 63µm	ISO 13322-2			%
Flow (Ø5,0mm, statically)	ASTM B964	1	6	s/50g
App. Density (Ø5,0mm, stat.)	ISO 3923-1:18-05	4	7,79	g/cm ³

Chemical Composition

Element	Fe	Cu	Ni	Cr	Mn	Si	C	Nb	Mo
Standard									
Min		3.0	3.0	15,0				0,34	
Max		5.0	5.0	17.5	1.0	1.0	0.07	0.45	0.6
Unit	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Property	Wert	Wert
Tensile Strength	Rm=	1044 N/mm ²
Yield Strength	Re=	711 N/mm ²
Elongation at Break	A=	12%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP 1.4404

Product Overview

JP 1.4404 is a high-quality, corrosion-resistant austenitic stainless steel powder specifically developed for additive manufacturing. Thanks to its excellent mechanical properties and high toughness, it is widely used across a broad range of industries.

Powder Specifications

Property	Norm	Min	Max	Unit
D10 [μm] (xc min)	ISO 13322-2	20	30	μm
D50 [μm] (xc min)	ISO 13322-2	31	41	μm
D90 [μm] (xc min)	ISO 13322-2	45	55	μm
Smaller 20 μm (xc min)	ISO 13322-2		8.0	%
Larger 63 μm	ISO 4497		0,5	%
Flow ($\varnothing 2,5\text{mm}$, statically)	ISO 4490	1		s/50g
App. Density ($\varnothing 2,5\text{mm}$, stat.)	ISO 3923-1:18-05	4.10		g/cm^3

Chemical Composition

Element	Fe	Mo	Ni	Cr	Mn	Si	C
Standard		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ISO15350
Min		2	10,5	16,0			
Max		3	14	18	2	1	0,03
Unit	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Property	Norm	Norm
Tensile Strength	Rm=	574 N/mm ²
Yield Strength	Re=	428 N/mm ²
Elongation at Break	A=	52%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP Ti64 Grade5

Product Overview

JP Ti64 Grade 5 offers an exceptional strength-to-weight ratio. As a result, it is widely used in demanding industries such as aerospace, automotive, and medical technology.

Powder Specifications

Property	Norm	Min	Max	Unit
D10 [µm] (xc min)	ISO 13322-2	13	28	µm
D50 [µm] (xc min)	ISO 13322-2	24	39	µm
D90 [µm] (xc min)	ISO 13322-2	38	53	µm
Smaller 15µm (xc min)	ISO 13322-2			%
Larger 45µm	ISO 4497			%
Flow (Ø5mm, statically)	ASTM B964			s/50g
App. Density (Ø5mm, stat.)	ISO 3923-1:18-05			g/cm ³

Chemical Composition

Element	Ti	Fe	Al	V	Res Each	Res Tot	N	O	H	C
Standard			ED-XRF	ED-XRF	ED-XRF	ED-XRF	ASTM E1409	ASTM E1409	ASTM E1447	ASTM E1447
Min			5.5	3,5						
Max		0,4	6,75	4,5	0,1	0,4	0,05	0,2	0,015	0,08
Unit	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Property	Norm	Norm
Tensile Strength	Rm=	N/mm ²
Yield Strength	Re=	N/mm ²
Elongation at Break	A=	%

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP Ti64 Grade23

Product Overview

JP Ti64 Grade 23 offers an exceptional strength-to-weight ratio and high fracture toughness. Compared to Ti64 Grade 5, it features particularly strict limits on the maximum allowable oxygen and iron content. Due to its high corrosion resistance and biocompatibility, JP Ti64 Grade 23 is widely used in industries such as aerospace, automotive, and medical technology. Subsequent heat treatment can be used to achieve a uniform microstructure, reducing process-induced residual stresses and improving the material's ductility.

Powder Specification

Property	Norm	Min	Max	Unit
D10 [µm] (xc min)	ISO 13322-2	13	28	µm
D50 [µm] (xc min)	ISO 13322-2	24	39	µm
D90 [µm] (xc min)	ISO 13322-2	38	53	µm %
Smaller15µm (xc min)	ISO 13322-2		5.0	s/50g
Flow (Ø5mm, statically) App.	ASTM B964			g/cm ³
Density (Ø5mm, stat.)	ISO 3923-1:18-05			

Chemical Composition

Element	Ti	Fe	Al	V	Y	Res Each	Res Tot	N ASTM	O ASTM	H ASTM	C ASTM
Standard		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	E1409	E1409	E1447	E1447
Min			5,5	3,5							
Max		0,25	6,5	4,5	0,005	0,1	0,4	0,03	0,13	0,012	0,08
Unit	Rest	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%	wt-%

Mechanical Properties

Property		As-built	Heat-treatedt
Tensile Strength	Rm=	1200 N/mm ²	1000 N/mm ²
Yield Strength	Re=	1050 N/mm ²	850 N/mm ²
Elongation at Break	A=	<10 %	>10 %

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP PA12 black Zenith

Product Overview

JP PA12 Black offers excellent mechanical properties and very good powder flowability. The powder is suitable for use across various types of additive manufacturing systems. In general, JP PA12 Black requires low energy input and can be processed at high exposure speeds.

Powder Specification

Property	Norm	Min	Unit
Material Density	DIN EN ISO 1183-1	1,2	g/cm ³
Particle Size D [V,90]	DIN EN ISO 9276	88	µm
Bulk Density	DIN EN ISO 60	0,45	g/cm ³
Melting Temperature	DIN EN ISO 11357	185	°C
Heat Deflection Temperature	DIN EN ISO 306	185	°C

Mechanical Properties

Property	Norm	Norm
Tensile Strength	Rm=	45 MPA
Tensile Modulus	Re=	1600 MPA
Elongation at Break	A=	20

Printing Systems

- EOS P110
- EOS P396
- 3D Systems ProX6 100
- 3D Systems SPro60
- 3D Systems SLS 380
- Farsoon ST 242 P
- Voxeljet VX200
- Many More...

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP PA12 white Zenith

Product Overview

JP PA12 White offers a well-balanced combination of mechanical properties and productivity. The parts can be smoothed mechanically or chemically and can be colored during post-processing. Please note that the required processing parameters may differ from the standard parameter settings.

Powder Specifications

Property	Norm	Min	Unit
Material Density	In-House Measurement Method	0,52	g/cm ³
Particle Size [V,90]	-	-	µm
Bulk Density	-	-	g/cm ³
Melting Temperature	DIN EN ISO 11357	187	°C
Crystallization Temperature	-	-	°C

Mechanical Properties

Property	Norm	Norm
Tensile Modulus XY	ISO 527	1700 MPA
Tensile Strength XY	ISO 527	45 MPA
Tensile Strength Z	ISO 527	43MPA
Elongation at Break XY	ISO 527	18%
Elongation at Break Z	ISO 527	10%
Unnotched Charpy Impact Strength XY	ISO 179-2	38 kJ/m ²
Flexural Modulus XY	ISO 178	1400 MPa

Printing Systems

- EOS P110
- EOS P396
- 3D Systems ProX6 100
- 3D Systems SPro60
- 3D Systems SLS 380
- Farsoon ST 242 P
- Voxeljet VX200
- Many More...

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP PA12 Performance

Product Overview

The *JP PA12 Performance* material combines the impact resistance and flexibility of PA11 with the printability of PA12. Ideal for components that need to withstand repeated loads.

Powder Specifications

Property	Norm	Min	Unit
Material density	In-house method	0,55	g/cm ³
Particle size D [V,90]	-	-	µm
Powder bulk density	-	-	g/cm ³
Melting temperature	DIN EN ISO 11357	187	°C
Crystallization temperature	-	-	°C
Powder color	-	grey/black	

Mechanical Properties

Property	Norm	Norm
Tensile modulus XY	ISO527	1450 MPA
Tensile strength XY	ISO527	40 MPA
Elongation at break X	ISO527	30 %
Unnotched impact strength Charpy)	ISO179	No Break

Printing Systems

- EOS P110
- EOS P380
- EOS P396
- EOS P500
- EOS P700
- Many more....

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



DATA SHEET-JP PA12 GF

Product Overview

The *JP PA12 GF* material offers increased stiffness and strength compared to PA12. The parts are ideally suited for demanding applications.

Powder Specification

Property	Norm	Min	Unit
Material density	In-house method	0,72	g/cm ³
Particle size D [V,90]	-	-	µm
Powder bulk density	-	-	g/cm ³
Melting temperature	DIN EN ISO 11357	187	°C
Crystallization temperature	-	-	°C
Powder color	-	white	

Mechanical Properties

Property	Norm	Norm
Tensile modulus XY	ISO527	3000MPa
Tensile strength XY	ISO527	46MPa
Elongation at break X	ISO527	9%
Unnotched impact strength Charpy)	ISO179	38 6 kJ/m ²
Flexural modulus X	ISO178	2800MPa
Shore hardness	ISO 7619-1	80D

Mechanical Properties

- EOS P110
- EOS P380
- EOS P396
- EOS P500
- EOS P700
- Many more....

Contact & Support

HoffmannAdditiveManufacturing AG

Email: info@hoffmann-am.com

Phone: +41 (0) 56 560 49 00



Ready for Your Next Project?

With the right 3D printing powder, your idea becomes a high-quality result. In our catalog, you'll find premium 3D printing powders designed to meet the highest standards. Our team is here to support you every step of the way - from material selection to delivery.

Buy 3D Printing Powder Now:

<https://materials.hoffmann-am.com/startseite-eng>

