



forAM[®] Ti6Al4V

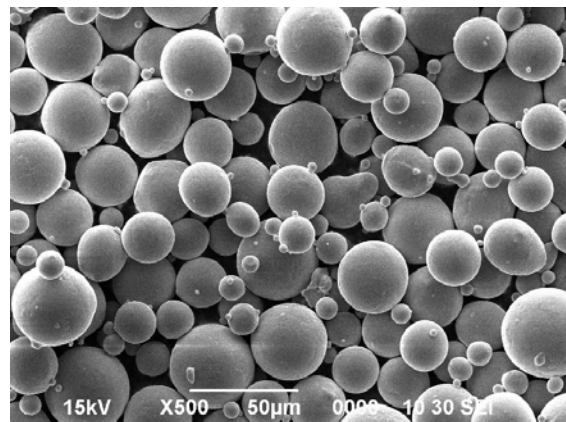
Titanium based powder for additive manufacturing



Ti6Al4V is the versatile Ti based alloy for additive manufacturing. Höganäs offers powders according to Grade 5 and Grade 23 (Extra Low Impurities-ELI) specifications. Ti6Al4V offers high specific strength combined with high corrosion resistance as well as good biocompatibility. This makes it a good choice for many applications in aerospace and automotive as well as medical industries. High cleanliness level and good processibility of Höganäs Ti powders allows multiple recycling cycles and therefore reducing total cost in production of Ti based components.

Applicable standards:

- ASTM F2924
- ASTM F 3001



For more information on Höganäs products, please contact your local sales representative.

Chemical composition

Powder grade	Particle size, μm	Chemical composition, wt %								
		Ti	Al	V	Fe	O	C	N	H	Y
forAM Ti6Al4V G23p 15-53 EG	15-53	Bal.	5.50-6.50	3.50-4.50	≤ 0.25	≤ 0.10	≤ 0.08	≤ 0.05	≤ 0.012	≤ 0.005
forAM Ti6Al4V G23p 45-106 EG	45-106	Bal.	5.50-6.50	3.50-4.50	≤ 0.25	≤ 0.10	≤ 0.08	≤ 0.05	≤ 0.012	≤ 0.005
forAM Ti6Al4V G5 15-53 EG	15-53	Bal.	5.50-6.75	3.50-4.50	≤ 0.25	≤ 0.17	≤ 0.08	≤ 0.05	≤ 0.012	≤ 0.005
forAM Ti6Al4V G5 45-106 EG	45-106	Bal.	5.50-6.75	3.50-4.50	≤ 0.25	≤ 0.17	≤ 0.08	≤ 0.05	≤ 0.012	≤ 0.005

Other elements: $\leq 0,40\%$ total; $\leq 0,10\%$ each

Typical powder properties

Powder grade	Particle size, μm	D50	Apparent density, g/cc	Hall flow, s/50g
forAM Ti6Al4V G23p 15-53 EG	15-53	29	2.35	35
forAM Ti6Al4V G23p 45-106 EG	45-106	68	2.33	29



Porosity $< 0,05\%$



Measurement standards:

Apparent density:

MPIF04, ASTM B212, ISO 3923/1

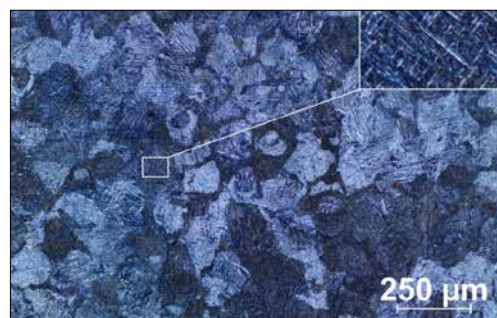
Hall flow:

MPIF03, ASTM B213, ISO4490

Microstructure of LPBF Grade 23 printed on EOS M290

Packaging:

Powders are packed in 25kg steel drums with polymer liner filled with Ar.



Etched samples showing $\alpha+\beta$ microstructure, typical for the alloy