



forAM[®] Ti6Al4V 45-106 EG

Titanium based powder for additive manufacturing

forAM Ti6Al4V EG is highly spherical powder designed for use in electron beam melting (EBM) and direct energy deposition (DED) processes. Ti6Al4V alloy offers high specific strength combined with high corrosion resistance and good biocompatibility. This makes it a good choice for many applications in aerospace, motorsports as well as medical industries.

Höganäs Ti based powders are produced via tungsten-free and crucible free manufacturing process, which excludes risk of heavy metal contamination in the material. High cleanliness level and good processability enables multiple recycling and therefore reducing total cost in production of Ti based components.

Applicable standards:

» ASTM F 3001; ASTM 2924

Powder chemical composition complies with:

» ASTM B348; ASTM F136

» ASTM 1472

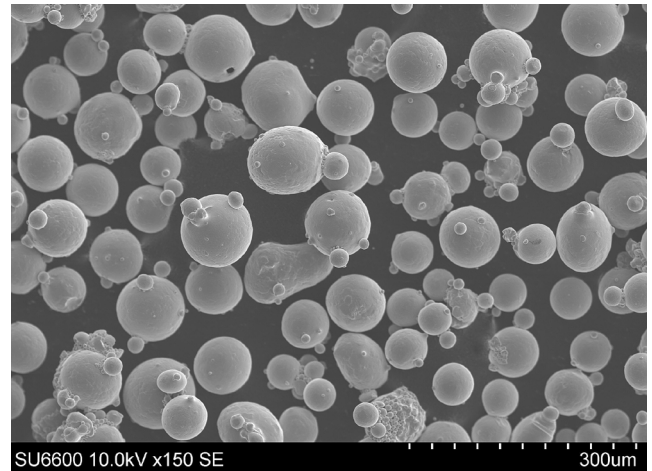
» ISO 5832-2

For more information on forAM product line and other of Höganäs products, please contact your local sales representative.

Powder properties

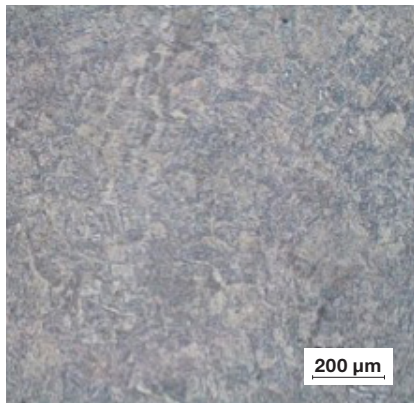
Chemical composition,		
Element	Grade 23	Grade 5
Al	5.50-6.50	5.50-6.75
V	3.50-4.50	3.50-4.50
Fe	≤0.25	≤0.25
O	≤0.10	≤0.17
C	≤0.08	≤0.08
N	≤0.03	≤0.05
H	≤0.012	≤0.012
Y	≤0.005	≤0.005
Ti	Balance	Balance

Other elements: ≤0,40% total; ≤0,10% each

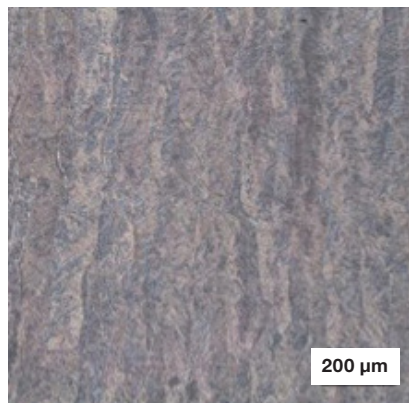


Typical powder properties		
Nominal particle range	45-106 µm	MPIF05, ASTM B214, ISO4497
Hall Flow	29 s/50 g	MPIF03, ASTM B213, ISO4490
Apparent Density	2.35 g/cm ³	MPIF04, ASTM B212, ISO3923/1

Microstructure for AM Ti6Al4V build by EBM process, as built condition



Etched, perpendicular to build direction



Etched, build direction

Standard packaging:

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