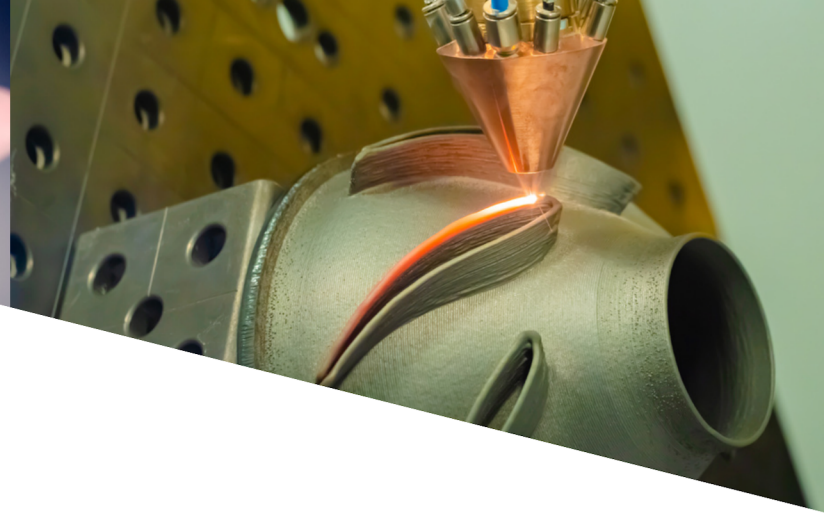
LEVIGATE ALLOYS
Infinite Possibilities

LeviADDITIVE®

Metal powders for Additive Manufacturing

LeviADDITIVE® powders have excellent metallurgical quality, spherical morphology, and high packing density, with the benefit of good flow characteristics.

www.levigatealloys.com



LEVIGATE ALLOYS
Infinite Possibilities

Unleashing infinite possibilities in metal powder manufaturing

Levigate Alloys was founded in 2021 by a team of experts in metal powder manufacturing to manufacture and supply a broad spectrum of metal powders, value-added products and high-precision components. We design metal powders to deliver the best results to our customers in applications such as Thermal spray coating, High-temperature brazing, Additive Manufacturing (AM), Hot Isostatic Pressing (HIP) and Metal Injection Molding (MIM).

Levigate offers a wide portfolio of high-quality metal powder series LeviADDITIVE®, that are optimized for use in Additive Manufacturing. LeviADDITIVE® powders have excellent metallurgical quality, spherical morphology, and high packing density, with the benefit of good flow characteristics. These critical properties are essential for uniform and consistent part build. We manufacture the powders under a controlled atmosphere, which leads to low oxygen content and low inclusion in AM parts. High purity and precise particle size distribution of our materials ensure ideal followability and bulk density across batches.

Our AM powders are manufactured using inert gas atomisation process and are ideal for the following Additive Manufacturing technologies,

Powder bed technologies:

- Laser Beam Melting (LBM) also known as Selective Laser Melting (SLM), Selective Laser Sintering (SLS), or Laser Powder Bed Fusion (L-PBF)
- Electron Beam Melting (EBM)
- Binder Jetting

Blown powder technologies:

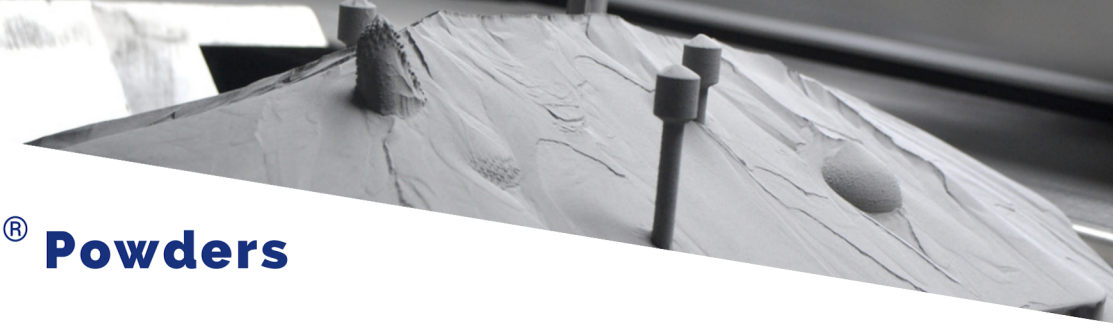
- Directed Energy Deposition (DED), also known as Laser Metal Deposition (LMD), or Laser Cladding

LeviADDITIVE® powders are usually tested to determine:

- Chemistry/Chemical composition
- Particle Size Distribution (PSD)
- Apparent Density (AD)
- Packing Density (PD)
- Flow rate

Our powders are supplied with a Test Certificate stating the above test results along with the powder specification requested by customers.

Levigate has the technical expertise and state-of-the-art screening equipment to meet very tight PSD requirements.



LeviADDITIVE® Powders

Iron based alloys (Fe)

Iron based powders resist abrasive wear at lower temperatures up to 200° C with moderate corrosion and metal-to-metal wear resistance.

Stainless steels

316L UNS S31603	DIN 1.4404
304L UNS S30403	DIN 1.4306

Precipitation hardening steels

15-5PH	DIN 1.4542
17-4PH	DIN 1.4542

Tool steels

H-13	DIN 1.2344
M2	UNS T11302
D2	DIN 1.2379

Maraging steel

18Ni300	DIN 1.2709

Nickel based alloys (Ni)

Nickel based powders are designed for high corrosion resistance, particularly against aggressive chemicals, where their high chromium and molybdenum contents provide excellent pitting resistance. And they are also resistant to high-temperature oxidation and hot gas corrosion.

Super alloys

Inconel 625	UNS N06625
Inconel 686	UNS N06686
Inconel 276	UNS N10276
Hastelloy X	UNS N06002
Hastelloy C-22	UNS N06022

Cobalt based alloys (Co)

Cobalt based powders provide a combination of excellent wear resistance, especially at high temperatures and good corrosion resistance. These alloys contain Cobalt as base metal with additions of Cr, W, and/or Mo and C. Cobalt based powders find applications in valve bodies and in medical applications such as artificial knees, hip joints and denture frameworks for fixed and removable prostheses.

Co based powders

CoCrMo (F75)
CoCrW
CoCrMoW
CoCrWC

Available standard PSD

Metal powders for Additive Manufacturing are available in a wide range of Particle Size Distribution (PSD) that are custom designed for different Additive Manufacturing processes. PSD can also be customised to meet surface finish and mechanical property requirements of the end products. Tight quality control of PSD at Levigate ensures good flowability and process stability.

Process technology	Size (µm)
Laser – Powder Bed Fusion (L–PBF)	15 to 53 and 20 to 45
Electron beam – Powder Bed Fusion (E–PBF)	45 to 106
Direct Energy Deposition (DED)	53 to 150
Binder Jetting	≤ 16, ≤ 22, ≤ 38, ≤ 45

Commercial Information

Powder Packing

Standard powder packaging is available in 5 Kg air-tight PE bottles, with 4 bottles (total 20 Kg) in one carton and also in 25 Kg steel drum. The packaging ensures a dry and contamination-free powder as well as uniform PSD.

Powder Handling Recommendations

Store the powders in the original closed container in a dry location to protect against moisture pick-up. It is recommended to tumble the powder containers prior to use to prevent segregation. Opened containers should be dried in an oven at temperatures between 40 °C to 60 °C (104 °F to 140° F) to eliminate moisture content.

Safety Recommendations

When handling metal powders, avoid inhalation and contact with skin and eyes. Please refer to the manufacturer MSDS (Material Safety Data Sheet) for more information.

Contact information

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