



GREEN POWDER



Fine spherical iron powder produced by hydrogen reduction of iron oxide

from waste



to resource



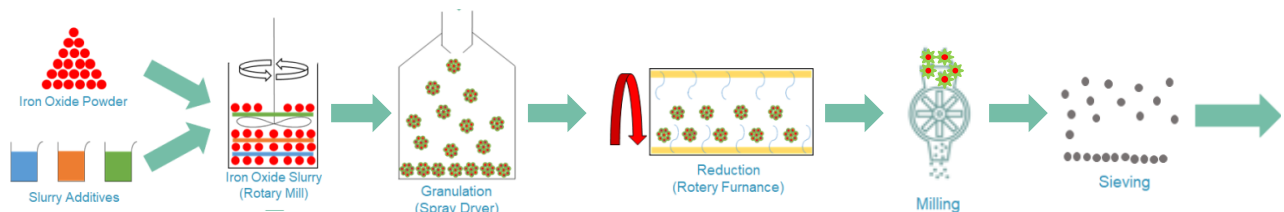
Challenge

- Significant need for fine iron powder for several industrial applications
- Great need to reduce waste and establish environmentally friendly recycling processes
- Reduction of CO₂ emissions
- Minimization of energy consumption
- Meeting legal requirements

Our solution

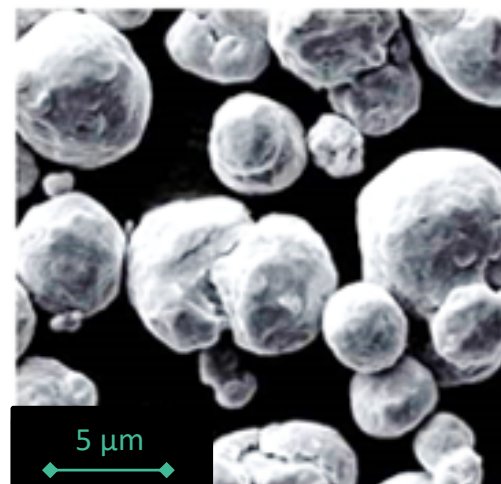
- Eco-friendly production of iron powder based on recycling of waste and by-products
- Up to 30% more energy efficient than conventional manufacturing processes
- Reduced carbon footprint of the iron powder

Production process



Characteristic of the iron powder

- Spherical powder
- Low porosity
- High purity
- Small particle size
- High oxidizing ability
- High sintering activity
- Low shrinkage in the sintering process
- Sintered density comparable to carbonyl process and gas atomized powder





GREEN POWDER



Powder specification

GP V20

Product Specification

GPV20 is a pure Iron-Powder made with a special recycling technology. It's characterized by an adjustable morphology and a very good price-performance ratio.

Morphology: spherical / different according to customer requirements

Particle Size: >20µm <50µm

Chemical Characteristics:

Fe	>99,5 %
Si	<80ppm
Mn	<5000ppm
Ca	<60ppm
Al	<30ppm
Cr	<30ppm
Ni	<150ppm
K	<20ppm
Cu	<30ppm
Pb	<20ppm
Zn	<30ppm
Mg	<20ppm
Ti	<20ppm
Na	<60ppm



GP VRP50

Product Specification

GP VRP50 is a pure Iron-Powder made with a special recycling technology. It's characterized by an adjustable morphology and a very good price-performance ratio.

Morphology: spherical / different according to customer requirements

Particle Size: >50µm <200µm

Chemical Characteristics:

Fe	>99,5 %
Si	<80ppm
Mn	<5000ppm
Ca	<60ppm
Al	<30ppm
Cr	<30ppm
Ni	<150ppm
K	<20ppm
Cu	<30ppm
Pb	<20ppm
Zn	<30ppm
Mg	<20ppm
Ti	<20ppm
Na	<60ppm



Application areas

- o Raw material for shaping
 - pressed and sintered parts, tools
 - Additive manufacturing, 3D printing
 - Metal injection molding (MIM)

- o Energy and storage technologies
- o Welding and flame cutting
- o Thermal coating



Contact

OSTEC GmbH

Am Bahndamm 3, 01665 Klipphausen

Dipl. Ing. Mathias Hoffmann

Fon: +49 35204 791912

m.hoffmann@ostec-meissen.de



- o Medium-sized company
- o Location in Saxony near Dresden
- o Business field: industrial heat treatment (hardening, nitriding, oxidizing, ...)