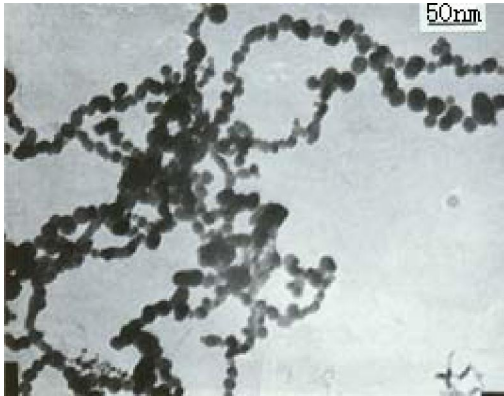


## Iron Nanopowder from NaBond



### Grade A

NaBond\_Iron nanoparticle(Grade A) is produced by laser evaporation process. The raw material used is high purity Iron. This process enables us to make high purity, small particle size, high active Iron nanoparticles in large quantity and low cost.

Product name: Iron nanopowder

Appearance: Black powder

Purity: 99.8% (metal basis)

Impurities: Cr<0.006%, Ca<0.004%, Mn<0.0086%, Ni<0.009%, Si<0.22%

Average particle size: 25nm (D90=50nm)

Specific surface area: 40-60 m<sup>2</sup>/g

Bulk density: 0.10-0.25 g/cm<sup>3</sup>

Packing: Vacuum packed

### Grade B

Product name: Iron nanopowder

Appearance: Black powder

Purity: 99.5% (metal basis)

Average particle size: 50nm

Specific surface area: 6-13 m<sup>2</sup>/g

Bulk density: 0.36 g/cm<sup>3</sup>

Packing: Vacuum packed

### Grade C

Product name: Iron nanopowder

Appearance: Black powder

Purity: 99.5% (metal basis)

Average particle size: 70nm

Specific surface area: 6-8 m<sup>2</sup>/g

Bulk density: 0.5 g/cm<sup>3</sup>

Packing: Vacuum packed

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Applications:

**Microwave-absorption materials:** Metal nanoparticles has special absorbing ability to electromagnetic wave. Iron, cobalt. Zinc oxide particles and its carbon package particles can be used as military high-performance millimeter wave invisible materials, visible light-infrared invisible materials and structural type invisible, and mobile radiation shielding materials.

**Magnetic-conductive size:** With the advantages of high saturation magnetization and high magnetic inductivity of iron nanoparticle, magnetic conductive size can be made, it is used for the binding structure of fine magnetic head.

**High-performance magnetic recording materials:** With its advantages including high coercivity, high saturation magnetization intensity (up to 1477 kA/kg), signal-to-noise ratio and good oxidation resistance, it remarkably improves the performance of tape, large-capacity hard disk and soft disk.

**Magnetic fluid:** The magnetic fluid made of iron, cobalt, nickel and its alloy particles provide excellent properties, they are widely used in seal shock absorption, medical equipment, acoustic adjustment, optical display, etc.

### **Storage**

NaBond\_Iron nanopowders have a shelf life of or more than 2 years. As Iron nanopowder is flammable, it should be kept at no-air and dry conditions, and it's best to use it under inert gas protection. It is passivated before shipment for safe shipping.

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### **Contact details:**

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