

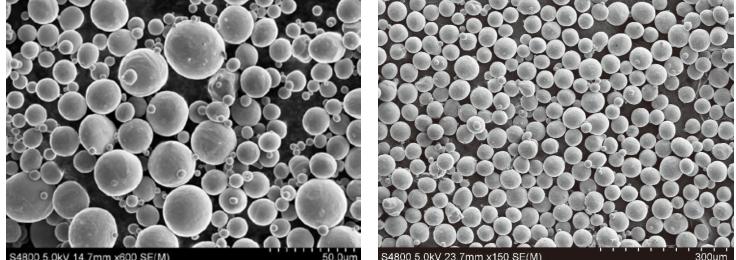
Introduction

17-4PH steel is a martensite precipitation hardened stainless steel with high strength, high hardness, good welding performance and corrosion resistance.

Powder Chemical Composition (wt.%)

| Element | Cr | Ni | Cu | Si | Mn |
|---------------|-----------|---------|---------|-----------|------|
| Content Range | 15.0-17.5 | 3.0-5.0 | 3.0-5.0 | | ≤1.O |
| | | | | | |
| Element | С | Р | S | Nb+Ta | Fe |
| Content Range | ≤0.07 | ≤0.04 | ≤0.03 | 0.15-0.45 | Bal. |

Powder EM Map (spherical 0.9)



S4800 5.0kV 14.7mm x600 SE(M)

S4800 5.0kV 23.7mm x150 SE(M)

Advantages

17-4PH has features including high strength, high hardness, excellent corrosion resistance, good heat treatment and welding properties.

Tolerance

200 µm or 0.2%

Attributes

| Performance | Printing State | Thermal Treatment State |
|------------------------|----------------|-------------------------|
| Tensile Strength (Mpa) | 1100±100 | 1250±100 |
| Yield Strength (Mpa) | 1050±100 | 1150±100 |
| Hardness HRC/HV | 28-41HRC | 36±3HRC |
| Extensibility | 16±4 | 16±4 |

Note: Surface hardness can vary greatly depending on how the specimen is prepared.

Applications

> 17-4PH stainless steel powder is mainly used in valves, shaft type, steam turbine parts and other high strength components with certain corrosion resistance requirements.