

Fv powder is an alloy formed by combining iron and vanadium with a vanadium content range of 35%-85%. The production of this alloy results in a grayish silver crystalline solid that can be crushed into a powder called "ferrovanadium dust". It is a universal hardener, strengthener and anti-corrosive additive for steels like high-strength low-alloy steel, tool steels, as well as other ferrous-based products. It has significant advantages over both iron and vanadium individually. It is used as an additive to improve the qualities of ferrous alloys. One such use is to improve corrosion resistance to alkaline reagents as well as sulphuric and hydrochloric acids. It is also used to improve the tensile strength to weight ratio of the material. One application of such steels is in the chemical processing industry for high pressure high throughput fluid handling systems dealing with industrial scale sulphuric acid production. It is also commonly used for hand tools e.g. spanners (wrenches), screwdrivers, ratchets, etc.

Vanadium content in ferrovanadium ranges from 35% to 85%.

FeV80 (80% Vanadium) is the most common composition. In addition to iron and vanadium, small amounts of silicon, aluminum, carbon, sulfur, phosphorus, arsenic, copper, and manganese are found in it. Impurities can make up to 11% by weight of the alloy.

Concentrations of these impurities determine the grade of ferrovanadium.

