Ferrocerium Composition

It is also known in Europe as **Auermetall** after its inventor Baron <u>Carl Auer von Welsbach</u>. Three different Auermetalls were developed: the first was iron and cerium, the second also included lanthanum to produce brighter sparks, and the third added other heavy metals. In the Baron von Welsbach's first <u>alloy</u>, 30% <u>iron</u> (ferrum) was added to purified <u>cerium</u>, hence the name "ferro-cerium".

A modern ferrocerium firesteel product is composed of an <u>alloy</u> of <u>rare-earth metals</u> called <u>mischmetal</u> (containing approximately 20.8% <u>iron</u>, 41.8% <u>cerium</u>, about 4.4% each of <u>praseodymium</u>, <u>neodymium</u>, and <u>magnesium</u>, plus 24.2% <u>lanthanum</u>. [4] A variety of other components are added to modify the spark and processing characteristics. [1] Most contemporary flints are hardened with <u>iron oxide</u> and <u>magnesium oxide</u>.

Element Iron Cerium Neodymium Praseodymium Magnesium Lanthanum

Fraction 20.8% 41.8% 4.4% 4.4% 4.4% 24.2%

The Dust or Powder for Each of these components is available for sale

Iron Dust

Iron Powder - 1lb \$6.95

Cerium Dust

Cerium Oxide ½ pound Optical Grade, Price \$17.00

Neodymium Dust

100g (3.52 oz) 99.9% High Purity Neodymium Nd Metal Powder, Rare Earth US \$33.40/ea

Praseodymium Dust

SKU-Pack Size Availability Pack SizePrice (USD) Quantity 263176-5G Available to ship on 10/12/19 - FROM5 G 75.50

Magnesium Dust

Price: \$79.96 (\$0.45 / Ounce) & **FREE Shipping**

Size: 5 Kilograms (11 lbs) Powder

Lanthanum Dust

SKU-Pack SizeAvailabilityPack SizePrice (USD) Quantity

263109-25G FROM 25 G 526.00 0