

Ferro Phosphorus

26	55.845	15	30.97361
Fe	⁵ D ₄ 1,83	P	⁴ S _{3/2} 2,19
Iron		Phosphorus	
7,874	7,9024	1,823	10,4867
1538	2861	44,2	280,5
(m) 126	BCC	(v) 106	§
[Ar] 3d ⁶ 4s ² +2,3		[Ne] 3s ² 3p ³ +3,4,5,-3	

Description

Ferro Phosphorus is a Ferro alloy composed of iron and phosphorus in which the phosphorus content defines the quality of the product, ranging between 25% and 32%.

Ferro Phosphorus is gained as a by-product of steel manufacturing, the result of the conversion of pig iron, removing it from the side in contact with the slag produced during this process. It can also be obtained as a by-product in the production of phosphorus.

Properties

PHYSICAL STATE	Solid
COLOUR	Gray
ODOUR	Odourless
MELTING POINT	1200°C
BOILING POINT	-
SPECIFIC GRAVITY	5.8g/cm ³

- Its preparation is not classified as dangerous according to the relevant European regulations, and it is also not classed as a hazardous good for transportation.
- The product is stable under normal conditions. It slowly reacts with water and air. It may react exothermically with oxidizing acids forming gases. It is much more stable in bulk than in powder.
- The dust may ignite when in suspension in the air, but a low pressure eliminates any risk of explosion. It may react with halogenated hydrocarbons, sometimes forming explosive compounds.
- It can catalyze polymerization and other reactions, especially when finely divided. It may release toxic and irritating gases if exposed to fire, such as phosphorus oxides and phosphoric acid.

Uses

The uses of Ferro Phosphorus include:

- The manufacturing of phosphorous castings
- The manufacturing of High-Strength special Steels Low-Alloy (HSLA)
- Its ability to be used as a deoxidizing agent in steels

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