

# Ferro Molybdenum

26	55.845	42	95.94
<b>Fe</b>	<sup>5</sup> D <sub>4</sub>	<b>Mo</b>	<sup>7</sup> S <sub>3</sub>
	1,83		2,16
<b>Iron</b>		<b>Molybdenum</b>	
7,874	7,9024	10,28	7,0924
1538	2861	2623	4639
(m) 126	BCC	(m) 139	BCC
[Ar] 3d <sup>6</sup> 4s <sup>2</sup>		[Kr] 4d <sup>5</sup> 5s <sup>1</sup>	
+2,3		+2,3,4,5,6	

## Description

Ferro Molybdenum is a Ferro Alloy that is generally obtained by the aluminothermic reduction of Ferro Silicon and technical grade molybdic oxide. After the solidification of the metal, some milling and sieving operations are carried out, thus obtaining the suitable particle size for addition in steel and cast iron. Ferro Molybdenum is classified according to its molybdenum content. The most common categories are those of FeMo, between 60%-70%.

The countries that currently rank first in the manufacturing of Ferro Molybdenum are China, USA and Chile, with the three countries taking a share of almost 80% of the world's molybdenum ore production.

Ferro Molybdenum is neither classified as hazardous preparation by the EU Regulations nor as a dangerous good for transportation.

## Properties

PHYSICAL STATE	Solid
COLOUR	Silvered gray to gray
ODOUR	Odourless
MELTING POINT	1900°C
BOILING POINT	n/a
SPECIFIC GRAVITY	6.7g/cm <sup>3</sup>

It is primarily used in the manufacturing of stainless steel and special steels to which it basically confers corrosion resistance and, due to the fact of having one of the highest melting points (2,623°C), hardening as resistance as well.

The product is stable under normal conditions but it should not be stored together with oxidizing products, acids, or in humid conditions.

Its preparation is not classified as dangerous according to the relevant European regulations, and it is also not classed as a hazardous good for transit.

## Uses

Its most common use is as a raw material for the manufacturing of several ferrous alloys of different types of items based on their content of molybdenum, such as machinery, military equipment, piping for process plants, drilling tools, etc. It is also frequently used in the manufacturing of stainless steels and steels for high temperature appliances such as in heat exchangers, equipment for chemical processing plants, etc.

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