

# **ORIENT NEW MATERIAL (HEBEI) CO.,LTD**

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## **CALCIUM SILICON BARIUM / Si-Ba-Ca alloy**

### **Product Description:**

The silicon barium calcium alloy is a perfect new deoxidizer and has good desulfurization ability for steelmaking, it plays a very important role in smelting sulfur, low phosphorus steel and has broad application prospects in the system of special steel.

### **Features and usage:**

1. Calcium silicon barium alloy is an effectively new type of composite alloy, which is used as deoxidizer and desulfurize in steelmaking, and has the performance of deposphorization, in addition which is also inoculant and metamorphic agent in casting.
2. Barium in steelmaking temperature range effectively reduce the vapor pressure of calcium, increase the solubility of calcium in the liquid steel. Compared with the calcium silicon alloy, calcium silicon barium alloy as a source of calcium to join in liquid steel, the addition of calcium quantity is half of the addition in calcium silicon alloy, while the calcium content in liquid steel is twice as calcium in calcium silicon alloy; the stability of calcium in liquid steel can also be improved obviously. This shows barium in liquid steel effectively protect the calcium, reduce the oxidation of calcium so as to achieve the purpose of treating calcium in liquid steel.

### **Technical Specification:**

Product grades	Chemical Composition (%)							
	Ca	Ba	Si	Al	Mn	C	P	S
FeSi55Ba13Ca13	13	13	55	3	0.4	0.4	0.05	0.05
FeSi50Ba16Ca12	12	16	50	3	0.4	0.4	0.05	0.05
FeSi45Ba10Ca15	15	10	45	3	0.4	0.4	0.05	0.05
FeSi50Ba16Ca10	10	16	50	3	0.4	0.4	0.05	0.05
FeSi45Ba10Ca9	9	10	45	3	0.4	0.4	0.05	0.05
FeSi45Ba15Ca5	5	15	45	3	0.4	0.4	0.05	0.05