玉发集团
YUFA GROUP

Micro Sodium White Fused Alumina

Introduction

The sodium oxide content of micro sodium white fused alumina is between 0.01-0.06%. The main crystalline phase of this product is α- Al_2O_3, The α phase ratio can reach more than 98%, and the color is white. It is suitable for processing materials with qualities of high hardness and tensile strength such as alloy steel, high hardness steel and high carbon steel. It has excellent characteristics such as high hardness, high sharpness and strong anti burn ability.

Sodium oxide is a harmful impurity for white corundum. In the molten state, it combines with alumina to form β- Al_2O_3. The amount of Al_2O_3 increases with the raising content of sodium oxide. Na_2O in white corundum is mainly $Na_2O \cdot 11Al_2O_3$ (β- Al_2O_3), for example, alumina raw material contains more than 0.6% sodium oxide, and white corundum produced with it will contain more than 10% sodium oxide β- Al_2O_3.

Compared with β-Al_2O_3, α- Al_2O_3 has the characteristics of "three highs": higher melting point, higher density and higher hardness.

Chemical Composition

Phase	Chemical Compositions	Crystal System	Density (g/cm^3)	Micro Hardness (kg/mm^2)	Melting Point (℃)
α -Al_2O_3	Al_2O_3	Hexagonal	4	2300	2050
β-Al_2O_3	$Na_2O{\cdot}11Al_2O_3$	Trigonal	3.24	1300~1600	1600

Chemical Composition	Na_2O % ≤	Al_2O_3 % ≥	SiO_2 % ≤	Fe_2O_3 % ≤
Gurantee Value	0.06	99.7	0.1	0.05
Typicl value	0.02	99.89	0.04	0.03

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