



Thermal insulation up to  
**1800°C & Lightweight**

Alumina Bubble Products 氧化铝空心球制品

Properties 技术性能	Units 单位	Trend Materials 材料牌号			
		<b>ZAB99</b>	<b>ZAB95</b>	<b>ZAB90</b>	
<b>Compositional</b> 物质组成					
Mineralogy 矿物组成		Microcrystalline Corundum 微晶刚玉	Microcrystalline Corundum 微晶刚玉	Microcrystalline Corundum 微晶刚玉	
Chemical composition 化学成分	Al <sub>2</sub> O <sub>3</sub>	%	99.0	95.0	90.0
	SiO <sub>2</sub>	%	0.2	3.0	8.2
	Fe <sub>2</sub> O <sub>3</sub>	%	0.02	0.04	0.18
<b>Mechanical</b> 机械性能					
Bulk density 体积密度	g/cm <sup>3</sup>	1.4-1.7	1.4-1.6	1.4-1.6	
Compressive strength @RT 常温耐压强度	MPa	8.0-16.0	8.0-16.0	8.0-16.0	
<b>Thermal</b> 热学性能					
Thermal shock resistance 热震稳定性	★	★★★★★	★★★★★	★★★★★	
Max working temperature 最高工作温度	°C	1800	1800	1700	

The application range of alumina bubble products: Lining and insulation layers for ultra-high temperature tunnel kilns and shuttle kilns. Linings for calcination furnaces used for lithium battery raw materials, lining and insulation layers for calcination furnaces used for electronic ceramics, magnetic materials, rare earth etc. They are also suitable for the linings for general continuous and intermittent ultra-high temperature kilns, kiln trolleys; nitrogen & hydrogen protective kilns; electric furnaces with various heating elements, gasifiers for petrochemical industry, reaction furnaces for carbon black industry and induction furnaces for metallurgical industry etc., with significant energy saving effects.

氧化铝空心球制品适用范围：超高温隧道窑、梭式窑窑炉内衬和保温层。锂电池原料煅烧窑炉内衬、电子陶瓷、磁性材料、稀土煅烧窑炉内衬和保温层等。一般的连续式和间歇式超高温窑炉内衬、台车内衬，氮气、氢气保护窑炉内衬，各种发热体的电炉，石化工业气化炉，炭黑工业反应炉及冶金工业感应电炉等，具有非常显著的节能效果。