

CCEWOOL® DEM Series Mullite Brick

Description:

Mullite bricks characterized with high refractoriness that can reach more than 1790C. Load softening temperature is between 1600 ~ 1700°C. Compressive strength at normal temperature is 70 ~ 260MPa. Good thermal shock resistance.

Characteristics:

There are sintered mullite and fused mullite brick. The main raw material of sintered mullite brick is high bauxite clinker by adding a small amount of clay or raw bauxite as binder made through molding and sintering. The main raw material of fused mullite brick is high bauxite, alumina and refractory clay, by adding charcoal or coke fines as a reducing agent. After molding using the reduction method to manufacture. The crystallization of fused mullite is larger than sintered mullite and thermal shock resistance is better than sintered products. The high temperature performance is mainly relying on the amount of alumina content and the distribution uniformity of mullite and glass.

Application:

Mainly used for top of hot blast stove, the body of blast furnace and furnace bottom, glass furnace regenerator, sintering kiln, and petroleum cracking corner lining system. The ideal composition and high purity of mullite brick make it available to apply in extreme conditions. Such applications are as follows:

- Chemical industry,
- The glass industry,
- Incinerator: highly polluted by waste and gas.

Technical data and Size:

Item		DEM60	DEM65	DEM70	DEM75
Chemical composition	Al ₂ O ₃ (%)	≥60	≥65	≥70	≥75
	SiO ₂ (%)	≤35	≤33	≤26	≤24
	Fe ₂ O ₃ (%)	≤1.0	≤1.0	≤0.6	≤0.4
Apparent Porosity (%)		≤17	≤17	≤17	≤18
Bulk Density (g/cm ³)		≥2.55	≥2.55	≥2.55	≥2.55
Cold Crushing Strength (Mpa)		≥60	≥60	≥80	≥80
0.2Mpa Refractoriness Under Load T0.6°C		≥1580	≥1600	≥1600	≥1650
Permanent Linear Change On Reheating (%) 1500°CX2h		0~+0.4	0~+0.4	0~+0.4	0~+0.4
Thermal Shock Resistances 100°C water cycles		≥18	≥18	≥18	≥18
20-1000oC Thermal Expansich 10-6/°C		0.6	0.6	0.6	0.55
Thermal Conductivity (W/MK) 1000 °C		1.74	1.84	1.95	1.95